POSTER ABSTRACTS AND POSTER PRESENTATION SCHEDULE

Poster Presenters have been invited present their E-Poster at the Poster Presentation Center in the 3rd Floor Promenade at the Hilton New York. Presentations take place Thursday, August 4 and Friday August 5th. Individual presentation times are grouped by Therapeutic areas are listed below the title.

ACNE – Thursday, August 4, 8:00am - 8:35am

P100: A double-blind, placebo-controlled, pilot study to determine the efficacy and safety of a clindamycin 1.2% and tretinoin 0.025% combination gel for the treatment of acne rosacea

Chang, Kimball, Alora-Palli, Lima

Presentation Time: Thursday, August 4, 2011 from 8:00:00 AM to 8:05:00 AM

Purpose: Papulopustular acne rosacea is a chronic inflammatory condition which can be difficult to treat. In human beings and animal models, chronic therapy with topical tretinoin promotes remodeling of the collagen in the papillary and reticular dermis and decreases dermal inflammation. Furthermore, topical clindamycin is known to improve acne vulgaris, but its effect on acne rosacea is less-well studied. The purpose of this study was to evaluate the the preliminary efficacy and tolerability of a combination gel consisting of clindamycin phosphate 1.2% and tretinoin 0.025% on papulopustular rosacea

METHODS: Double-blind, placebo-controlled two site study of 82 participants with moderate to severe papulopustular acne rosacea using both physician and subjects’ validated assessment tools. Seventy nine were included in a modified intent to treat analysis. The primary endpoint consisted of statistically significant reduction in absolute papule or pustule count after 12 weeks of twice daily usage. RESULTS: Significant improvement in the erythematotelangiectatic rosacea subtype (p=0.05) was detected on physician assessment in treated group compared to placebo group after 12 weeks with the the telangiectatic component of rosacea (p=0.06) also trending toward improvement. No significant change in the papulopustule count (p=0.20) or in self-assessments of rosacea severity were found. Facial scaling was the only adverse event which was increased in treated compared to placebo groups but did not reach statistical significance (p=0.13).

CONCLUSIONS: A combination gel of clindamycin phosphate 1.2% and tretinoin 0.025% may improve the telangiectatic component of rosacea and appears to better treat the erythematotelangiectatic rather than papulopustular rosacea subtype. Further research may confirm these findings and reveal the mechanisms by which this occurs.

Commercial Support: The sponsor of this study is Medicis.
In vitro release of tretinoin from two clindamycin and tretinoin combination gel formulations

Lenn

Presentation Time: Thursday, August 4, 2011 from 8:10:00 AM to 8:15:00 AM

Introduction: A clindamycin phosphate 1.2% and tretinoin 0.025% gel (CT Gel 1), in which tretinoin is solubulized using a non-ionic surfactant) was recently approved for the topical treatment of acne vulgaris in patients 12 years and older. Another clindamycin phosphate 1.2% and tretinoin 0.025% gel (CT Gel 2) currently on the market is formulated in an aqueous based gel, where tretinoin is suspended. The in-vitro release test (IVRT) has been identified by the FDA to have “shown promise as means to comprehensively assure consistent delivery of active components from semisolid products.” The IVRT model uses a synthetic membrane mounted in a diffusion cell system to show the rate of drug release from a formulation. Data defining the relative rate of release can be accurately determined by this model and used to compare similar formulations. The aim of this study is to compare rates of tretinoin release between CT Gel 1 (solubulized tretinoin) and CT Gel 2 (suspended tretinoin). Methods: A pseudo-infinite dose of CT Gel 1 (solubulized tretinoin) or CT Gel 2 (suspended tretinoin) was applied to six diffusion chambers fitted with a GN-6 Metrocel® MCE membrane. The receptor compartment contained a solution consisting of 35:65 Ethanol:Phosphate Buffer pH 7.4. Six receptor solution aliquots were collected serially over a period of 6 hours. The aliquots were analyzed for tretinoin content by High Performance Liquid Chromatography (HPLC). The mean rate of release was determined. Analysis based on SUPAC-SS guidance; equivalence was determined using the 90% CI of the ratio of the formulations mean release rate with an acceptance criteria of 75%-133%. Results: The mean rate of release for the CT Gel 1 was shown to be three fold higher compared to CT Gel 2 (8.3+/−3.8 μg/cm2/hr1/2 vs 2.7+/−1.3 μg/cm2/hr1/2 respectively; 90%CI [219%–617%]). This confirms that solubulized tretinoin has a greater rate of release compared to suspended tretinoin from these two gels. Conclusions: In vitro rate of release showed CT Gel 1 (solubulized tretinoin) was three fold higher compared to CT Gel 2 (suspended tretinoin). Using the equivalence acceptance criteria specified in the SUPACSS Guidance, the two combination gels were determined not to be equivalent. The clinical significance of this finding is unknown.

Commercial Support: 100% is sponsored by Stiefel, a GSK company
P103: Bioavailability of clindamycin from a new clindamycin 1%–benzoyl peroxide 3% low dose gel

Jones, Potts, Alió Sáenz

Presentation Time: Thursday, August 4, 2011 from 8:20:00 AM to 8:25:00 AM

While clindamycin 1%–benzoyl peroxide 5% gel (C/BPO) has been shown to be well tolerated, concentration dependent irritation is associated with BPO. A clindamycin 1%–benzoyl peroxide 3% gel (CLN 1%–BPO 3%) has recently been developed. CLN 1%–BPO 3% is a paraben-free formulation that contains the same concentration of clindamycin, but a lower concentration of BPO than C/BPO. The objective of this study was to determine if the bioavailability of clindamycin and its metabolite clindamycin sulfoxide are altered by the concentration of BPO or by formulation under maximal use conditions in subjects with moderate to severe acne vulgaris. This open-label study randomized 72 subjects in a 1:1:1 ratio to either CLN 1%-BPO 3%, methylparaben-free; CLN 1%-BPO 5% with methylparaben (C/BPO-MP), or CLN 1%-BPO 5% Gel, methylparaben-free (C/BPO-MPF). Subjects applied 4 grams of study product once-daily for 5 days. Safety was assessed by evaluating adverse events (AEs), vital signs, and withdrawals from the study. Plasma concentrations of clindamycin and clindamycin sulfoxide were evaluated before application on Days 1, 2, 3, 4, and 5 (and at 1, 2, 4, 6, 8, 12, and 24 hours after Day 5 application). In addition, Cmax, tmax, AUC0-t, and t1/2 were calculated for Day 5. The systemic exposure to clindamycin and clindamycin sulfoxide from CLN 1%-BPO 3% was generally comparable to, or lower than, exposure from C/BPO-MP, while exposure to clindamycin and clindamycin sulfoxide from CLN 1%-BPO 3% was generally higher than exposure from C/BPO-MPF. No significant differences were observed. Clindamycin reached maximal observed plasma concentrations within 4-8 hours on Day 5 for all products. Cmax and AUC values were ~4 to 5-fold higher for clindamycin compared with clindamycin sulfoxide across all products, indicating that the conversion of clindamycin to its metabolite was not affected. 5 subjects (3 in CLN 1%-BPO 3%; 1 in C/BPO-MP; 1 in C/BPO-MPF) experienced ≥ 1 AE. No AEs were related to study product. There were no AEs leading to discontinuation, serious AEs, or clinically significant changes in vital signs during the study. Systemic exposure to clindamycin and clindamycin sulfoxide did not appear to be affected by the concentration of BPO (3% or 5%) or by formulation. Topical application of CLN 1%-BPO 3%, C/BPO-MP, or C/BPO-MPF for 5 days appeared to be safe, well tolerated, and resulted in similarly low systemic exposure in subjects with moderate-to-severe acne vulgaris.

Commercial Support: 100% is sponsored by Stiefel, a GSK company
P104:  An open-label, split-face study evaluating efficacy and safety of photopneumatic therapy for the treatment of acne

Lee, Shin, Kim, Lee

Presentation Time: Thursday, August 4, 2011 from 8:30:00 AM to 8:35:00 AM

Introduction: Acne vulgaris is the most common skin disease and there are many treatment modalities including oral medication, topicals and lasers. Recently, a novel device (Isolaz, Pleasanton, CA), combining vacuum pressure with a broadband light source (400 to 1200 nm) was developed for the effective treatment of acne. Purpose: To determine the clinical efficacy and safety of photopneumatic therapy for the treatment of facial acne vulgaris. Method: Twenty adults with mild to moderate facial acne vulgaris received 4 successive treatments at 2-week intervals with a combined photopneumatic device (intense pulsed light[IPL] : fluence = 5.8J/cm²; negative pressure=iMP mode) on the one side of face. Acne lesion at the other side of face did not receive any treatment. A counting acne lesion began at baseline, prior to each treatment session, and a counting was conducted until 3 month after final treatment. Result: Significant improvements in acne lesion at treated side of face were observed. And they showed a higher degree of reduction in acne lesion at treated side of face comparing with untreated side of face. More effective result was observed after the end of final treatment. Global clinical improvement was seen in the majority of patients. Severe side effects did not occur, only occurred transient erythema, purpura and transient aggravation of acne. Conclusion: A photopneumatic therapy is safe and effective treatment for mild to moderate acne vulgaris.

Commercial Support: None identified
P200: Clinical evaluation of cutaneous xerosis in elderly

Pires, Gatti, Ventura

Presentation Time: Thursday, August 4, 2011 from 8:40:00 AM to 8:45:00 AM

ABSTRACT

Background: Dry skin is a common complaint in the elderly population, and few studies have approached this subject. Objectives: evaluate the factors associated with dry skin in the elderly. Study the efficacy and safety of the hydrating DMS cream in the treatment of asthenosis in the senile cohort. Patients, materials and methods: we evaluated 31 patients from the dermatology clinic at the “Complexo Hospitalar Padre Bento de Guarulhos”, all aged above 60 and presenting dry skin. Complementary exams were performed, as well as the evaluation of skin hydration (“corneometer”) and the transepidermic water loss (TEWLmeter). All patients were treated with a hydrating cream DMS (dermal membrane structure). Results: regarding the sex of the patients, 78.6% were females and 21.4% were males. The mean age was 69 years. Diabetes was found in 32.3% of patients, and arterial hypertension in 54.8%. The mean values obtained by the corneometer were 37.8 prior to treatment and 53.2 after the treatment with Fisiogel®. Conclusions: the comorbidity between hypertension and diabetes was frequent, skin hydration was reduced (low values in the corneometer), with improvement after the treatment with the specific cream, with an increase in the protective barrier function of the skin.

Commercial Support: Stiefel Lab supplied Fisiogel samples. The investigators didn't receive any personal payment.
BACKGROUND: The skin is an organ that plays a primary role in tactile receptivity and directly reacts to emotional stimuli. Therefore, dermatological practice includes a psychosomatic dimension. A relationship between psychological factors and skin diseases has long been hypothesised. Psychodermatology addresses the interaction between the mind and the skin. Today, we know that it is essential to consider both biopsychosocial approaches and pathophysiological approaches to treatment, involving general practitioners, psychiatrists, dermatologists and psychologists. However, psychodermatology is a relatively new discipline, and the body of literature addressing it is still scarce.

MATERIALS AND METHODS: To obtain data, we consulted the archives of dermatological societies in Europe and America from the year of their founding until 2010. We also consulted other psychiatric and psychological societies and received responses from most of them.

RESULTS: Among the different stages in the historical evolution of psychodermatology (the early, anecdotal phase; the methodological phase and the contemporary phase), it was only in the most recent phase that Association for Pschocutaneous Medicine of North America and the European Society of Dermatology and Psychiatry was established. In Spain, the Spanish Society of Dermatology and Psychiatry was the first to be established, and it was followed by the Spanish Group of Dermatology and Psychiatry, which is associated with the Spanish Society of Dermatology and Venereology. More recently, a psychodermatology group was established within the Ibero Latin American College of Dermatology.

CONCLUSIONS: This review details the historical evolution of the relationship between the skin and the mind. It also reveals the emergence of psychodermatology as a discipline in its own right and describes the societies that have emerged worldwide as a result of collaboration between dermatologists and psychiatrists.

Commercial Support: None identified
Glycyl-L-histidyl-L-lysine is a naturally occurring tripeptide originally isolated from human plasma. It has a high affinity for copper and readily forms a copper tripeptide complex, glycyl-L-histidyl-L-lysine-Cu2+ (GHK-Cu). Initially developed for wound healing the activities of this copper complex include collagen synthesis, angiogenesis, and the modulation of glycoaminoglycan, proteoglycan and metalloproteinases expression. More recently these activities have been applied to a range of dermatological applications including skin, hair and wound. The thermodynamics and kinetics of copper binding to glycyl-L-histidine (GH) have been known since the early 1970s and such binding is independent of the lysine residue present in GHK. We hypothesized that, although lysine is present in the natural copper binding peptide found in plasma, the activities exhibited by GHK-Cu could be equally provided by the smaller GH-Cu complex. Both GHK and GH were complexed with copper in a 2:1 ratio, peptide to copper. At 1ug/ml and 10ug/ml GH-Cu significantly increased collagen I production in fibroblasts by 125% and 300% respectively. GHK-Cu only induced collagen at the higher concentration (225%). Copper skin penetration studies, using the Epiderm™ skin model, demonstrated that after 4 hours GH-Cu delivered 30pg/ml copper whereas GHK-Cu delivered 18pg/ml. When collagen induction was tested at these concentrations the dipeptide exhibited 20% more collagen induction than the tripeptide. Both copper complexes induced cell proliferation at pico-gram concentrations and induced angiogenesis to similar degrees. In microarray analysis the modulation of over 3000 genes revealed no significant differences between the two peptide complexes. Both were non-cytotoxic to human skin cells. Interestingly without copper neither peptide induced collagen I synthesis indicating that the delivery of copper by such peptide complexes is likely responsible for their activities. The data presented here suggests that GH-Cu exhibits at least the same activity as GHK-Cu, if not better. However, it’s smaller size likely leads to improved skin penetration and thus improved copper delivery. Despite the presence of lysine in the natural copper complexing peptide in man, it is not required for activity. This is likely because the lysine has little impact on copper binding.

Commercial Support: None identified
Raynaud's phenomenon of the nipple in breastfeeding mothers: An underdiagnosed cause of nipple pain

Heller, Fullerton Stone, Murase

Presentation Time: Thursday, August 4, 2011 from 9:10:00 AM to 9:15:00 AM

Background: Raynaud’s phenomenon affects about 20% of women of childbearing age.[i] It is described as vasospasm of the arterioles causing intermittent ischemia. It most commonly affects the fingers and toes, but it can also involve the nipples and breasts. Because fungal culture of breastmilk is commercially unavailable, the pain associated with Raynaud’s is often misdiagnosed as chronic candidal mastitis. There are only a few reported cases on Raynaud’s phenomenon of the nipple among breastfeeding mothers.[i,ii] We present the largest case series of pain attributed to Raynaud’s of the nipple to-date.

Purpose: To provide physicians with the tools necessary to recognize and treat Raynaud’s phenomenon in breastfeeding mothers with deep nipple pain during lactation.

Methods: A review of patients at a dermatology referral clinic for breastfeeding mothers with pain and dermatitis. All patients were seen between January 2004 and December 2010.

Results: 24 breastfeeding mothers were diagnosed with Raynaud’s phenomenon of the nipple out of 86 seen for pain while breastfeeding during this time period. 20/24 patients failed previous treatment for candida mastitis with oral or topical antifungals. All 24 patients were advised to avoid exposure to cold temperature, caffeine, tobacco, and vasoconstrictive drugs that may precipitate symptoms. 17/24 patients were prescribed nifedipine. All patients who took nifedipine reported decreased or resolution of nipple pain. 3 patients discontinued nifedipine due to common side effects, including headache, dizziness, and nausea. Conclusion: In our case series, almost all the patients were inappropriately diagnosed and treated with antifungals prior to presentation. With appropriate therapy for Raynaud’s phenomenon, patients experienced marked improvement of nipple pain. Thus, Raynaud’s phenomenon of the nipple should be considered in the differential diagnosis of deep nipple pain during lactation. i. Anderson JE, Held N, Wright K. Raynaud's phenomenon of the nipple: a treatable cause of painful breastfeeding. Pediatrics 2004;113:e360-4. ii. Lawlor-Smith L, Lawlor-Smith C. Vasospasm of the nipple-a manifestation of Raynaud's phenomenon: case reports. BMJ 1997;314:644-5.

Commercial Support: None identified
**P501:** Health-related quality of life among Darier’s disease patients

Dodiuk-Gad, Rozenman, Cohen-Barak, Ziv

**Presentation Time: Thursday, August 4, 2011 from 9:20:00 AM to 9:25:00 AM**

Background: Darier's disease (DD, Darier-White disease, keratosis follicularis) is an autosomal dominant skin disorder characterized by loss of adhesion between epidermal cells, and abnormal keratinization of the epidermis, nails and mucous membranes, resulting in persistent eruption of hyperkeratotic papules. DD has been associated with neuropsychiatric and other systemic disorders. The effect of DD on quality of life (QOL) has been assessed in only one study that found that the Dermatology Life Quality Index (DLQI) score did not correlate with the physician's assessment of clinical severity of DD. The correlation between health-related quality of life (HRQL) scores and other disease and patient characteristics has not been studied. Objectives: To examine the HRQL of patients with DD and to evaluate the association between HRQL scores and disease and patient characteristics. Methods: Seventy-four DD patients completed three QOL questionnaires: DLQI, EQ-5D, and one specially designed for the study. The data reported in this study were collected as part of a larger study on the clinical characteristics of DD; the socio-demographic and clinical data was used in the statistical analysis of the current study. Results: Mean DLQI was 5.41±5.57 and the mean EQ-Visual Analogue Scale (VAS), a self-rated health score, was 70.84±19.25. DLQI and EQ-VAS were significantly associated with area affected, disease severity, age at onset of DD, and a seborreic distribution pattern of DD. As the area affected increased, the DLQI score increased and the EQ-VAS score decreased (r=0.528, p<0.001; r=-0.237, p<0.05). As the severity of disease increased, the DLQI score increased and the EQ-VAS score decreased (p<0.001; p<0.01). As the age at onset of DD rose, the DLQI score decreased and the EQ-VAS score increased (r=-0.349, p<0.003; r=0.298, p<0.01). Patients with a seborreic distribution pattern had significantly higher DLQI scores and tended to have lower EQ-VAS scores than those with other distributions (p<0.02; p<0.08). Stepwise linear regression showed area affected to be the most significant variable in the predication of DLQI (beta=0.183, se=0.04, p<0.001) and disease severity the most significant variable in the predication of EQ-VAS (beta=-9.15, se=3.21, p<0.006). Conclusions: DD has a negative impact on HRQL of patients and the HRQL is associated with various disease characteristics, mainly area affected and clinical severity.

**Commercial Support:** None identified
Plasma histamine concentrations and diamine oxidase activities in chronic idiopathic urticaria

Kim, Lee, Park, Cho

Presentation Time: Thursday, August 4, 2011 from 9:30:00 AM to 9:35:00 AM

Background: Chronic idiopathic urticaria (CIU) has been considered as a complex and multifactorial disease. Histamine is an important mediator in urticaria. Its excessive intake may induce an attack of urticaria. The main enzyme for histamine metabolism is diamine oxidase (DAO). Objective: Plasma histamine concentrations and DAO activities were evaluated to determine whether there are some abnormalities in the histamine metabolism of CIU. Methods: Seventy-five of CIU patients and twenty-five healthy control subjects were included in the study. Blood was taken from all subjects to measure plasma levels of the histamine and DAO. Results: Mean plasma histamine levels were significantly higher in CIU patients (11.59 ± 10.98 nM) than in the control subjects (8.75 ± 2.55 nM). Mean DAO activities were lower in patients of CIU (80.86 ± 26.81 HDU/ml) than in the control (81.60±9.67 HDU/ml), with no significant difference. Of 75 CIU patients, 15 had gastrointestinal symptoms, a mean plasma histamine concentration of 12.43 ± 7.97 nM and a mean DAO activity of 77.93 ± 27.53 HDU/ml. The histamine concentration was higher and lower DAO activity was lower in these 15 CIU patients with gastrointestinal symptoms than in the remaining 60 ICU patients without gastrointestinal symptoms (11.38 ± 11.67 Nm versus 81.58 ± 26.82 HDU/ml), without any significant difference. Conclusions: High plasma histamine concentrations were significantly higher in CIU patients than in the control subjects. Low DAO activity was not remarkable in CIU patients. A negative relationship between plasma concentration and DAO activity was found in all subjects.

Commercial Support: None identified
A 50-year-old female presented with a five day history of an intensely pruritic eruption. Physical examination revealed linear erythematous streaks affecting the trunk, proximal limbs and face. Dietary history revealed that she had consumed portobello mushrooms three days prior to the onset of the rash and a pastry containing shitake mushroom the day of the illness. The shitake mushroom is the second commonest cultivated mushroom worldwide. Other etiologic causes of flagellate dermatitis include exogenous drugs such as bleomycin, pepleomycin and doxetaxel, as well as dermatomyositis, adult-onset Still's disease and as an unusual manifestation of human immunodeficiency virus infection with hypereosinophilic syndrome. Distinguishing features of shitake dermatitis from drug-induced flagellate dermatitis include the positive dietary history, absence of stomatitis and postinflammatory hyperpigmentation. While the histology of shitake dermatitis is nonspecific with spongiosis and a perivascular infiltrate, histology of bleomycin flagellate dermatitis resembles that of fixed drug eruption in the acute phase with basal vacuolar alteration and apoptotic keratinocytes; if biosied late, postinflammatory changes predominate. The pruritic, violaceous, linear eruption in dermatomyositis, also termed centripetal flagellate erythema mirror disease activity and are postulated to be due to sun exposure and physical trauma. We review the literature on flagellate dermatoses and discuss their differing pathophysiology, clinical and histological features.
**P504**: Review: Timing of office visits can be a powerful tool to improve adherence in the treatment of dermatologic conditions

Heaton, Levender, Feldman

**Presentation Time: Thursday, August 4, 2011 from 9:50:00 AM to 9:55:00 AM**

Background: Poor adherence to treatment is a significant problem throughout medicine and particularly in the treatment of dermatologic conditions with topical medications, which present unique barriers to adherence. Purpose: We reviewed the literature to assess whether timing of office visits can be used to improve adherence. Methods: Studies examining adherence and office visits were identified using two search engines. A PubMed search was conducted using the terms “medication adherence” OR “medication compliance” AND “visits.” A Web of Science® cited reference search was performed to identify all articles that referenced the paper “On White-Coat Effects and the Electronic Monitoring of Compliance” by Alvan Feinstein, MD. Results: 15 studies were identified, three of which were on dermatologic conditions. 13 studies found a positive correlation between adherence and office visits. Three of these studies demonstrated increased adherence with increased visit frequency. One study reported adherence was unaffected by office visits. Limitations: Our review was limited in that none of the studies identified looked at the effect timing of office visits had on adherence long term. Conclusions: According to this literature review, strategic scheduling of office visits can be a valuable tool to improve adherence, particularly in the management of dermatologic conditions, and can help to spare patients unnecessary exposure to more toxic systemic therapies.

Commercial Support: None identified
CASE  A 65-year-old male presented to the dermatology clinic with a two month history of swelling and tenderness beneath his right breast. His history included a right sided pneumonectomy for IIIA non-small-cell carcinoma two and a half years prior and for chemoradiation for a right sided paratracheal recurrence one year prior to presentation. On exam he had an indurated band like area of erythema inferior to the right breast with minimal overlying scale. Biopsies performed revealed minimal spongiosis with superficial perivascular and interstitial mixed inflammatory infiltrate. After failure to improve on topical steroids and oral antibiotics for presumed post radiation lymphangiitis, he presented with an acute violaceous plaque and a three centimeter brightly erythematous fluctuant bulla. A CT scan at that time showed a chest wall soft tissue mass and suggestion of possible cutaneous tract. Surgical exploration by the thoracic surgery team confirmed a pleurocutaneous fistula with empyema and ruled out local recurrent lung cancer.

DISCUSSION  A pleurocutaneous fistula is defined as a pathologic connection between the pleural space and the subcutaneous or cutaneous tissues. It can occur as a complication of infection, trauma, neoplasm, foreign body aspiration or, more commonly, iatrogenic causes. Most pleurocutaneous fistulas present as an open or draining sinus, shortness of breath, or subcutaneous emphysema. Our case is unique in that a pleurocutaneous fistula presented with an erythematous spongiotic plaque with subsequent bulla development. No other cases have presented in this same manner in our review of the literature. It is essential to be aware of a potential fistula as a late manifestation of thoracic surgery, radiation therapy or infection so that appropriate surgical treatment can be promptly performed to avoid further potentially life threatening complications.
Atypical pyoderma gangrenosum or neutrophilic dermatosis of the dorsal hands (NDDH) is regarded as a localized Sweet syndrome occurring on the dorsum of the hands. It can present as erythematous plaques, pustules and hemorrhagic bullae with ulceration, and may or may not be associated with systemic symptoms. Disorders that are most commonly associated with NDDH are hematologic malignancies and inflammatory bowel disease. Histopathology reveals papillary dermal edema and neutrophilic infiltrate with leukocytoclasis. Prompt response to corticosteroid treatment is often seen. A 56-year-old woman presented with a history of tender lesions and swelling on the dorsal hands. She had a history of trauma from a kitchen knife one week prior to presentation. She initially developed a small “pimple” type lesion that progressed into an erythematous to violaceous, edematous, ulcerated plaque. Over the span of a week she developed other vesiculopustular lesions on the right third digit, left second digit and left fourth metacarpophalangeal joint, some of which progressed into edematous ulcerated plaques. She denied fevers, joint aches, upper respiratory symptoms, gastrointestinal symptoms, or flu-like symptoms. She denied a history of inflammatory bowel disease or other autoimmune or rheumatologic disease. The lesions responded to a prednisone taper. NDDH is considered part of a spectrum of disease that includes atypical pyoderma gangrenosum, bullous Sweet syndrome, and pustular vasculitis of the hands and all of these may be considered variations of a single disease entity. We report a trauma-induced lesion of NDDH in a patient with an otherwise unremarkable medical history for hematologic malignancy or inflammatory bowel disease.

Commercial Support: None identified
Title: Poems syndrome identified in a patient with multiple atypical hemangiomas

Crittenden, Kulp-Shorten, Bahrami

Presentation Time: Thursday, August 4, 2011 from 10:30:00 AM to 10:35:00 AM

Background: POEMS syndrome (polyneuropathy, organomegaly, endocrinopathy, monoclonal gamnopathy, and skin lesions) is associated with a variety of cutaneous manifestations, most commonly hyperpigmentation but also hemangiomas, hypertrichosis, sclerodermoid features, acrocyanosis, acquired facial lipoatrophy, and livedo reticularis. Glomeruloid hemangiomas are distinct vascular proliferations that occur almost exclusively in patients with POEMS syndrome. We describe a patient who has multiple atypical-appearing hemangiomas, polyneuropathy, multiple endocrine disorders, and a serum monoclonal protein consistent with POEMS syndrome.

Observation: A 68-year old man was seen in the Dermatology clinic for many vascular lesions that have appeared in the past few years and are increasing in number. Physical exam revealed numerous cherry red to violaceous papules and nodules on his scalp, face, trunk, and extremities. Two biopsies of representative lesions from the scalp and lip revealed features of both capillary and cavernous hemangiomas. The patient carries a diagnosis of chronic inflammatory demyelinating polyneuropathy and is treated in the Neurology clinic with intravenous immunoglobulin and azathioprine. He is also followed in the Endocrinology clinic for hypogonadism, hypothyroidism, and type 2 diabetes mellitus. A serum protein electrophoresis was performed that showed two low level paraproteins identified as IgA-kappa monoclonal proteins. Based on the constellation of clinical features and supportive serum protein electrophoresis data, a diagnosis of POEMS syndrome was made. Further cutaneous biopsies are planned looking for glomeruloid hemangiomas. Also, the patient will be evaluated for a possible plasma cell dyscrasia, and imaging will be performed looking for organomegaly. Comment: POEMS syndrome is a rare multisystem disorder that is associated with an underlying plasma cell dyscrasia. Although skin manifestations in this syndrome are not typically severe or life threatening, they are useful in alerting physicians to a possible underlying systemic disease and help in establishing the diagnosis. Most reports of this syndrome are in the neurology and hematology literature, and it is only recently that data on the variety of dermatologic manifestations that can occur with POEMS syndrome have become available.

Commercial Support: None identified
Sweet syndrome associated with chlamydia pneumoniae pneumonia

Antunes, Travassos, Pacheco, Filipe

Presentation Time: Thursday, August 4, 2011 from 10:40:00 AM to 10:45:00 AM

The authors present the case of a 16-year-old male patient, with an unremarkable medical history, who presented with an acute dermatitis consisting of painful violaceous papules and nodules, affecting mainly the lower limbs. He also complained of dry cough and low-grade fever over the previous 2 weeks. Chest X-ray showed diffuse pulmonary infiltrate of the right lung, compatible with interstitial pneumonia, and the patient was started on amoxicillin clavulanate 1,2g iv tid and azithromycin 500mg iv qid. Skin biopsies showed an inflammatory infiltrate occupying the upper and mid-dermis, composed mainly of neutrophils and without signs of vasculitis, which was suggestive of Sweet Syndrome, and the patient was medicated with prednisolone 30mg/day. Anti-Chlamydia pneumoniae IgM antibodies were positive (>16 AU/mL). Respiratory complaints resolved in 8 days and skin lesions resolved in 3 weeks, leaving only residual hyperpigmented spots. Prednisolone was slowly tapered over a 2-month period, without recurrence of skin lesions. Sweet Syndrome is a reactive process, which has been associated with inflammatory diseases, malignancies and administration of various medications. An elevated production of Th1-type cytokines has been reported in a group of patients with this syndrome. Chlamydia infection is known to induce activation of Th1 lymphocytes. This may explain the immunologic mechanism for development of Sweet Syndrome in this patient.

Commercial Support: None identified
A case of plasma cell cheilitis arising from actinic cheilitis

Kim, Yoo, Kim, Park

Presentation Time: Thursday, August 4, 2011 from 10:50:00 AM to 10:55:00 AM

Plasma cell cheilitis is a rare, idiopathic benign inflammatory disease of lips, characterized by a dense plasma cell infiltration in the upper dermis. It is usually presented as erythematous erosive patches on the lip among the elderly person. A 65-year-old Korean woman with a 2-month history of well defined erosive patch on her lower lip, was revealed as an actinic cheilitis by the histopathological analysis and was treated by cryosurgery in 1 year ago. After the cryosurgery, the lip lesion was improved and had almost disappeared. But a round, erythematous to brownish colored erosive patch was relapsed on the previous actinic cheilitis lesion in 2 months ago. Skin biopsy findings for the lesion revealed erosion and edema of the epidermis, and dense plasma cells infiltration in the dermis. There was no atypical nucleus or mitotic figure. The immunoperoxidase staining for immunoglobulin light chain showed many cells positive for κ and λ chains. Among them, cells positive for κ chain were observed more frequently. By the histopathological analysis, the diagnosis was made as plasma cell cheilitis. She received intralesional injection of triamcinolone acetonide (2.5mg/cc) with application of tacrolimus ointment(0.1%). Many reported cases of plasma cell cheilitis have shown no precursor lesion, but our case had a precursor lesion which was actinic cheilitis. Herein, we present a case of plasma cell cheilitis arising from an actinic cheilitis.

Commercial Support: None identified
**P511:** Mycosis fungoides palmaris et plantaris in childhood

Kim

**Presentation Time:** Thursday, August 4, 2011 from 11:00:00 AM to 11:05:00 AM

**Introduction** Mycosis fungoides palmaris et plantaris (MFPP) is a rare form of mycosis fungoides confined to the palms and soles. The clinical manifestation of MFPP is confused with inflammatory palmoplantar dermatoses. Mycosis fungoides is usually considered as a disease of middle age, but it is rarely developed at any age. **Case report** A 10-year-old girl was referred to us with 2-year history of recalcitrant palmoplantar dermatoses. Other clinics had treated her for more than 2 years, but all medical treatments turned out to have had no effect, despite of her young age. She has not had any atopic dermatitis or allergic contact dermatitis. Histopathologic findings show inflammatory cells infiltration and lymphocytic epidermotropism. Monoclonal TCR-rearrangement shows positive, so we diagnosed as MFPP. We tried to treat her with topical PUVA therapy and successfully improved within 3months. **Conclusion** We report on a case of mycosis fungoides Palmaris et plantaris treated successfully with topical PUVA in a 10-year-old girl.

**Commercial Support:** None identified
Introduction: Scleromyxedema, also known as generalized lichen myxedematosus, is a rare cutaneous mucinous disease characterized by a generalized papular and sclerodermoid eruption, dermal mucin deposition, increased fibroblast proliferation, fibrosis, and monoclonal gammopathy in the absence of thyroid disease and systemic manifestations such as cardiovascular, pulmonary, gastrointestinal, rheumatologic, and central nervous systems, leading to significant morbidity and mortality. Case presentation: A 23 years old Caucasian man presented to us complaints with a 1 month history of edema on his face and eyes, neck, arms, swelling on the whole body. Dermatological examination revealed diffuse erythema on the face, enduration, coarsening, and both in the forehead lines and his face was as leon-like (leonine facies). Diffuse, widespread, erythematous, symmetric, waxy, shiny, small, 2-3 mm papules and linearly plaques were seen in his face, forehead, neck, distal forearms, and hands, upper extremities, and back. The opening of his mouth constricted, and dysphagia was developed. The muscle weakness was in his hands. He also had sclerodactily. A biopsy specimen taken of a papule revealed in the papillary and upper reticular dermis deposition of mucin, proliferation of fibroblasts and fibrosis. Laboratory investigations revealed the following abnormalities; lactat dehidrogenase levels 724 U/L (normal, 220-450 U/L). His short routine chemistry profile was within normal limits. Serum immunoglobulin levels and protein levels were normal. The serum contained Scl-70 antibodies, anti-SSA, anti-Sm, anti-DNA were absent. Chest radiography, electrocardiography were negative. Minimal mitral and tricuspidal failure was in electrocardiography. Electromyography of the deltoid muscle showed signs of acute myositis. Conclusion: Occurrence of atypical scleromyxedema is rare. Herein we reported atypical scleromyxedema without monoclonal gammopathy.

Commercial Support: None identified
Tumid lupus erythematosus with progression to discoid lupus erythematosus

Hazey, Callen, Bahrami

Presentation Time: Thursday, August 4, 2011 from 11:20:00 AM to 11:25:00 AM

Background: Tumid lupus erythematosus (TLE) is characterized by photodistributed, nonscarring, erythematous plaques without surface change. TLE patients rarely show serologic abnormalities or develop systemic LE. An absence of epidermal atrophy or vacuolar interface dermatitis is noted histologically. While TLE can occur concomitantly with lesions of discoid lupus erythematosus (DLE), cases progressing from TLE to DLE are extremely rare. Observation: A 42-year-old presented in April 2006 with an enlarging lesion on her right cheek. Physical examination revealed a 4x4cm erythematous, annular plaque without surface change. A biopsy showed a perivascular and perifollicular lymphocytic infiltrate without interface dermatitis and mildly increased dermal mucin, consistent with TLE. Laboratory studies were normal. She was treated with photoprotection, topical corticosteroids, and hydroxychloroquine 200mg twice daily without response. Subsequently, intralesional triamcinolone, tacrolimus ointment, chloroquine 250mg daily, cyclosporine 300mg daily, dapsone 100mg daily, and pulsed-dye laser were unsuccessful. In April 2008 a new, similar-appearing plaque developed on the right anterior neck, and biopsy of this lesion was also consistent with TLE. Prednisone tapers, methotrexate 15mg weekly, and acitretin 25mg daily failed to control her lesions, and she was referred to us in June 2010. Physical examination in 2010 revealed an annular, erythematous plaque on the right cheek and neck with minimal overlying scale. Patulous follicles, atrophy, and scarring were also noted. Repeat biopsy demonstrated previous findings with the addition of vacuolar interface dermatitis. Pertinent laboratory findings included a positive ANA and elevated anti-La (SS-B) antibody level. She was diagnosed with DLE, and her skin disease has stabilized with hydroxychloroquine 200mg daily, pimecrolimus cream, photoprotection, and periodic intralesional triamcinolone. Comment: Authorities frequently debate the appropriate use of the term TLE and whether it belongs in the spectrum of LE-specific cutaneous disease. Our case suggests that it at least represents a nonspecific cutaneous manifestation of LE with the potential to progress to LE-specific discoid lesions.

Commercial Support: None identified
P700: The effect of parenting practices to behavior problems in children with atopic dermatitis

Kim

**Presentation Time: Thursday, August 4, 2011 from 11:30:00 AM to 11:35:00 AM**

Objectives: This study examined whether four, specific maternal parenting practices affected internalizing and externalizing behavioral problems in children with atopic dermatitis. Method: A prospective, longitudinal, cohort study was conducted among 132 children, 18 months to 6 years old who were diagnosed with atopic dermatitis. The measurements were the Child Behavior Checklist for Ages 1.5-5 (CBCL 15.5-5) and the Childrearing Behavior Questionnaire (measuring four dimensions of parenting practice: warmth-encouragement, mediation-supervision, rejection-nonintervention, overprotection-permission). Descriptive and logistic regression analyses were performed. Results: Maternal rejection-nonintervention increased risks for internalizing problems (OR=1.135) and externalizing behavioral problem (OR=1.162). Conclusions: Children with atopic dermatitis who reported higher rejection-nonintervention parenting practice showed higher internalizing and externalizing problems more. Development of preventive and intervention programs with the goal of improving parenting skills may help to prevent and reduce behavioral problems of children with atopic dermatitis.

Commercial Support: None identified
P701: Involvement of human histamine N-methyltransferase gene polymorphisms in susceptibility to atopic dermatitis in Korean children

Sohn

Presentation Time: Thursday, August 4, from 11:40AM to 11:55AM

Objectives: Histamine N-methyltransferase (HNMT) catalyzes one of two major metabolic pathways for histamine. The aim of this study was to evaluate the role of HNMT polymorphisms in children with atopic dermatitis. Methods: We genotyped 763 children for allelic determinants at four polymorphic sites, which were -465T>C, -413C>T, 314C>T and 939A>G in the HNMT gene, and the functional effect of the 939A>G polymorphism was analyzed. The genotyping was screened using the TaqMan fluorogenic 5' nuclease assay (ABI, Foster City, CA, USA). Results: Among these 763 children, 520 had eczema and 542 had atopy. Distributions of the genotype and allele frequencies of HNMT 314C>T polymorphism were significantly associated with non-atopic eczema (P = .008) and those of HNMT 939A>G polymorphism were significantly associated with eczema in atopy groups (P = .024). However, those of HNMT 654T>C and 413C>T polymorphisms were not. Frequencies (P = .01) and genotype distributions (P = .008) of haplotype 3 (T-G) was associated with non-atopic eczema susceptibility. In addition, subjects with the homozygous AA or heterozygous AG of the 939A>G polymorphism showed significantly higher IgE levels than those with the homozygous GG genotype (P = .009). In U937 cells, the variant genotype reporter construct showed significantly higher mRNA stability (P<.001) and HNMT enzyme activity (P<.001) than the common genotype. Conclusion: Polymorphisms in the HNMT gene appear to confer susceptibility to atopic dermatitis in Korean children.

Commercial Support: This research was supported by grant A090399 from Korea Healthcare Technology R&D Project, Ministry for Health, Welfare, and Family Affairs, Republic of Korea
**P702:** A safe, effective, and novel topical herbal preparation for the treatment of atopic dermatitis

Alex, Payne, Frank, Ye, Centola

**Presentation Time: Thursday, August 4, 2011 from 11:50:00 AM to 11:55:00 AM**

Atopic dermatitis (AD) is typically treated with topical corticosteroids and calcineurin inhibitors, which come with undesirable side-effects and response attenuation. We have developed a unique combination of anti-inflammatory herbal extracts denoted Herbal Atopic Dermatitis Therapy-01 (HAT-01), and have demonstrated it to be a potent, safe, anti-inflammatory agent with profound therapeutic effects in AD. The therapeutic effects of HAT-01 were investigated in the oxazolone-induced murine chronic AD model, which is characterized by pruritic dermatosis, epidermal hyperplasia, lymphocytic infiltrates, and parakeratotic scales. Topical applications of HAT-01 (d.b.) progressively reversed the disease course clinically, histologically, and systemically. HAT-01 treated animals had a 73.4% decrease in signs of edema, erythema, and excoriations relative to vehicle-treated controls (treated n=21, vehicle-treated n=21). Moreover, HAT-01 significantly decreased dermal infiltrates and hyperplasia, including a 82.2% decrease in dermal myeloperoxidase activity (a marker of neutrophil infiltration), relative to controls. Additionally, HAT-01 decreased levels of the pro-inflammatory serum cytokines IL-17, IL-12, IL-1β, TNF-α, and KC relative to controls. To investigate the safety, efficacy and tolerability of HAT-01 in human AD, we performed a randomized placebo-controlled trial with a regimen of twice-daily topical application of HAT-01 (300ul of 1:10 dilution) in 64 AD patients fulfilling inclusion criteria. All patients were maintained on standard therapy by their treating physicians during the trial. Significant resolution of symptoms and signs as determined by SCORAD, which includes edema, excoriations, xerosis, were observed in 84% of HAT-01-treated AD patients, compared to 5.3% in the placebo group after 4 weeks of HAT-01 treatment. Moreover, significant decreases in peripheral blood eosinophilia in HAT-01 treated patients relative to placebo group were also noted, suggesting HAT-01 has both local and systemic anti-inflammatory effects. Effects of HAT-01 were sustained with no relapses noted after 12 weeks of treatment. Treatment with HAT-01 was well tolerated and no adverse events were observed or reported. We have developed a novel topical anti-inflammatory herbal preparation and demonstrated that it is a safe and effective complementary treatment for AD. Further studies are ongoing to characterize the mechanisms and efficacy of this compound.

Commercial Support: This grant was entirely funded by Haus Bioceuticals, Inc.
Introduction: The Nuss procedure used in surgical correction of pectus excavatum requires implantation of a convex metal bar behind the sternum. Over a period of years, the Nuss bar allows for permanent remodeling of the chest wall deformity. Since the Nuss procedure was first introduced in 1998 there have been only few reports of postoperative cutaneous complications. We report 4 patients with cutaneous reactions associated with Nuss bar placement. Methods: Patient information was obtained from electronic medical records. All 4 were patch tested with stainless steel metal discs supplied by the Nuss bar manufacturer. When performed, expanded patch testing was carried out in accordance with guidelines established by the North American Contact Dermatitis Group. Results: Preoperatively, there was no history of body piercing or metal allergy in each of the four patients, who also had negative patch test reactions to the metal discs. Postoperatively, three of the four patients developed areas of protuberant granulation tissue at one or more incision sites. The remaining patient developed localized edema, dermatitis and lymphadenopathy without granulation tissue formation over the incision sites. Two of the four patients underwent further patch testing after development of cutaneous symptoms. Of these two, one with dermatitis had a positive reaction to nickel and the other with granulation tissue tested negative for metal allergy. Wound cultures were negative for bacterial infection. Wounds were managed with local care, prophylactic antibiotics and low dose oral corticosteroids. Conclusion: Despite clinical evidence of cutaneous reactions or putative allergy, no patient required early removal of the Nuss bar(s). After removal of the bars all patients have maintained correction of their pectus excavatum deformity. Cutaneous disc testing for metal allergy does not provide accurate screening for the implant used in the Nuss procedure.

Commercial Support: None identified
P900: Single-center, double-blinded study comparing the long-term UV protective effects of three topical antioxidant products

Ho, Herndon, Jr., Sigler, Mehta, Stephens

Presentation Time: Thursday, August 4, 2011 from 1:00:00 PM to 1:05:00 PM

The short-term clinical effects observed from exposure to UV irradiation include cutaneous inflammation and erythema. Topical antioxidants have been shown to provide protective effects against such UV-induced erythema. However, UV irradiation may also result in long-term effects including post-inflammatory hyperpigmentation. A single-center, double-blind comparison study was conducted to compare the efficacy of three topical products in preventing UV-induced erythema and post-inflammatory hyperpigmentation. The products included Serum (APS), containing tetrahexyldecyl ascorbate, coenzyme Q10, ergothionine, blackberry leaf extract, green tea extract, and tocotrienols; Serum (C+E) containing vitamins C and E; and Serum (CEF) containing vitamins C, E and ferulic acid. 17 healthy female subjects, aged 26-63 years with Fitzpatrick Skin Types III-IV, completed the study. At baseline, four test areas were marked onto the backs of the subjects: Untreated control, APS, C+E and CEF. Assignments of the test products to test areas were randomized to avoid site bias. The minimal erythemal dose (MED) for each subject was also determined, using a solar simulator with a spectral output comparable to that of natural solar radiation (UVB: 290-320 nm, UVA: 320-400nm). Thirty microliters of each test product were applied to the respective test sites by the study staff, once daily, for 4 days. On Day 5, test sites were irradiated with 1.0, 1.5, 2.0, and 2.5 MEDs. Application of test products resumed on Day 6, continuing for eleven days (Monday through Friday only). Standardized digital photographs were taken of the test sites on Days 6 and 20 (end of study visit). The images were analyzed using a computer-aided colorimetry algorithm, according to the CIE color standard, to determine a* (degree of redness) and L* (brightness) at Day 6, and L* (brightness) at Day 20. All three topical products provided statistically significant protection from UV-induced erythema at Day 6 and UV-induced post-inflammatory hyperpigmentation at Day 20, when compared to untreated control (all P<0.025). In addition, APS product provided significantly greater protection over both C+E and CEF products from UV-induced post-inflammatory hyperpigmentation (P<0.0001). These results suggest that the unique combination of antioxidant and anti-inflammatory agents in APS may provide additional protection over antioxidants alone, in preventing long-term UV damage.

Commercial Support: 100% is sponsored by SkinMedica, Inc.
P901: Efficacy and safety of a novel dual resurfacing product that combines the benefits of manual microdermabrasion and chemical peeling

Weinkle, Tropmann, Burgess, Ghorayeb, Dhawan

Presentation Time: Thursday, August 4, 2011 from 1:10:00 PM to 1:15:00 PM

Objectives: Preliminary data with a novel Dual Resurfacing Product (DRP; containing 15% salicylic acid with exfoliants) have shown improvements in signs of photoaging. Two clinical studies were conducted to evaluate the efficacy and safety of repeated procedures to treat photoaging and photodamage. Study Methods: Study #1 enrolled 48 male and female subjects, age 40-67, across all Fitzpatrick skin types to 1 of 3 arms (DRP = 20, Salicylic Acid 20% Peel = 14, Microdermabrasion = 15). Study #2 evaluated 20 female subjects, age 27-53, primarily of skin types IV and higher in an open label design. In each study, subjects received 3-4 procedures (2 weeks apart), and were also evaluated 2 weeks after the last procedure. Efficacy was assessed by investigator evaluations of pore size, fine lines and wrinkles, skin texture, elasticity, and dyschromia (on a 5-point scale), as well as an Investigator and Subject Global Aesthetic Improvement Scale (IGAIS and SGAIS). Safety was assessed by evaluating adverse events (AEs), subject tolerability assessments, and withdrawals from the studies. Results: In study #1, the change from baseline in pore size, fine lines/wrinkles, skin texture, and elasticity at Wk 8 was comparable across all 3 arms. For dyschromia, only the DRP arm demonstrated a statistically significant improvement from baseline (p=.0156). For the IGAIS, as well as SGAIS, at Wk 8, all 3 arms experienced mild-moderate improvement. In Study #2, a subset of acne-prone subjects (14/20) were included. In this study, DRP mean changes from baseline for pore size, fine lines/wrinkles, skin texture, elasticity, and dyschromia were similar to Study #1. For the IGAIS, 95% of subjects experienced mild-moderate improvement. For the SGAIS, 85% of subjects experienced mild-marked improvement. No treatment related events were reported in either study. DRP was well-tolerated post-procedure as reported in subject assessments. No subjects withdrew due to adverse events. Conclusions: In general, DRP showed a comparable effect to the SA and MA arms with respect to improvement of photoaging-related appearance changes. This product appears to be particularly effective for dyschromia, especially in darker skin types. Also, these results indicate subjects with darker, acne prone skin may see benefit in improvement of dyschromia resulting from acne-related post-inflammatory hyperpigmentation.

Commercial Support: 100% is sponsored by Stiefel, a GSK company
DIGITAL/ELECTRONIC TECHNOLOGY - Thursday, August 4, from 1:20PM to 1:25PM

**P1000**: A pilot study to evaluate high resolution skin imaging technology (HRSIT) in dermatology clinical practice

Lowe, Hassan

**Presentation Time: Thursday, August 4, 2011 from 1:20:00 PM to 1:25:00 PM**

Background: An evidence based approach is critical for both clinical assessment and investigative research into skin aging and response to treatment, HRSIT provides a potential new platform.

Objectives: To review the consistency of photographic print assessment; To compare clinical evaluation with photographic assessment; To validate the reproducibility of HRSIT for redness and pigmentation; To compare clinical evaluation with HRSIT. Methods: Volunteers were recruited at a single site in the UK. Each was assessed with HRSIT, had photographic images taken and were clinically assessed for erythema and pigmentation using a 6 point validated scale. HRSIT provides numerical values for redness (erythema) and sun damage (pigmentation) based on severity. Results: 24 females were recruited and consented. The mean age was 44 years. 21 were Fitzpatrick skin type II, 3 skin type III. All were at least mild on the 6 point scale for erythema ranging to very severe, and ranging between minimal and severe for pigmentation. The clinical evaluation and the photographic assessment results were more closely aligned for erythema than for pigmentation. The variability for the photographic readings ranged from 12 to 31% for erythema and from 36 to 107% for pigmentation. There was 14% variability when using HRSIT on multiple occasions to assess redness (erythema) and 16% variability when assessing pigmentation in this study. There was a trend towards consistency when comparing the clinical evaluation values with the HRSIT results and these were also more clearly aligned for erythema. Limitations: This was a pilot study in a small number of individuals. The results suggest that further research with HRSIT could improve the evaluation of patterns of redness (erythema) and pigmentation in the population. Further training may also improve the validity and relevance of the results. Conclusion: These preliminary data demonstrated that HRSIT can be used reproducibly to measure areas of the skin for both redness (erythema) and sun damage (pigmentation). Clinical evaluation by a Dermatologist and imaging technology can be complementary and used in conjunction for assessment and documentation.

Commercial Support: The author is a consultant and investigator for Philips
P1100: Assessing and improving patient knowledge about keloid scars

Lee, West, Borovicka, Kundu

Presentation Time: Thursday, August 4, 2011 from 1:30:00 PM to 1:35:00 PM

BACKGROUND There is increasing reliance on sources of information other than physicians for confirmation of diagnosis and treatment approaches, including the Internet. OBJECTIVE To determine the impact of prior acquisition of Internet information as well as a short educational intervention on subject level of understanding of keloid scar prevention and treatment. METHODS Twenty-one adult subjects with a clinical diagnosis of “keloid scar” were recruited from Northwestern University’s dermatology clinic and local advertising to the public. Subjects completed a 19-item questionnaire to evaluate understanding of keloid scar prevention and treatment measures at three time points: pre-intervention (PR-I), post-intervention (PO-I), and 3-month phone follow up (3MF). The PR-I questionnaire also collected information on subject history of keloid scarring and Internet use. A 5-minute lecture (“educational intervention”) prepared by the researchers, provided medically appropriate lay language information on keloid scar prevention and treatment and was delivered to subjects between the PR-I and PO-I assessments. Responses to the 19-item questionnaires were compared using paired t-tests. RESULTS Twenty-one subjects participated in the PR-I and PO-I, and 11 of the 14 eligible subjects (79%) participated in the 3MF. Nine of 21 subjects (43%) reported prior use of the Internet to find keloid information. Six of the nine (67%) used this resource to research how to self-treat keloid scars. Performance, measured as percentage of questions correct (out of 19), improved from 69% to 96% (p<0.001) between PR-I and PO-I assessments. At PO-I, 62% and 67% of subjects reported being less likely than at PR-I to seek new tattoos or piercings, respectively. Mean performance on the 3MF assessment was 84%, reflecting a 15% increase (p=0.004) and 12% decrease (p<0.001) from PR-I and PO-I performances (percentage of questions correct), respectively. DISCUSSION Significant improvement in subject understanding of keloid prevention and treatment was achieved at PO-I and 3MF. The educational intervention also influences some patients to avoid tattoos and piercings, both of which are body modifications that carry a higher risk of keloid scar formation in prone individuals. These preliminary findings suggest that a short educational intervention is an effective tool to enhance understanding in patients with keloid scars in the clinical setting.

Commercial Support: None identified
P1200: Identifying risk factors via a skin cancer screening program: The Moffitt Mole Patrol experience

Etzkorn, Zager, Lien, Parikh, Marzban

Presentation Time: Thursday, August 4, 2011 from 1:40:00 PM to 1:45:00 PM

Background: Skin cancer screening is advocated by the American Academy of Dermatology and the American Cancer Society to promote public awareness and detect suspicious lesions early. Moffitt Cancer Center initiated the Mole Patrol® program (MP) to provide free whole-body skin examinations and education. Objective: Retrospectively identify and differentiate factors associated with a presumptive diagnosis of actinic keratosis (AK), basal cell carcinoma (BCC), squamous cell carcinoma (SCC), dysplastic nevus (DN), or melanoma. Methods: The MP prospectively screened 5169 people in Florida and Puerto Rico from 2007 to 2010. Participants provided medical history details by completing a standardized form. Skin exams were conducted, and presumptive diagnoses were recorded. Presumptive diagnoses were assigned to one of two categories: suspicious carcinoma group (SCG), which includes AK, BCC, and SCC, or suspicious pigmented lesion group (SPLG), which includes DN and melanoma. The Mantel-Haenszel Chi-square test was used for analysis. Results: Participants were 46.3% male, and 15.5% had a history of skin cancer. The median age was 53 years. The breakdown of skin phototype (SP) from I to V was 13%, 29%, 31%, 19%, and 9%, respectively. History of skin cancer, lower SP, sunscreen use, and history of more chronic sun exposure (CSE) were significantly associated with SCG findings (P<0.0001). Sunscreen use was associated with a lower SP (P<0.0001). When controlling for SP, sunscreen use was not associated with SCG. At venues with a mean age > 50 years, the frequency of SCG findings was 29%, 35%, and 67%, whereas at venues with a median age < 50 years, the frequency of SCG findings was 3%, 16%, and 33% when stratified by minimal, moderate, or severe CSE, respectively. A history of changing moles was significantly associated with the suspicion of SPLG findings (P<0.0001). SP and CSE were not significantly associated with suspected SPLG lesions. Conclusion: Population based screening efforts can be successful in identifying people with SCG and SPLG lesions. When screening for SCG lesions, a history of skin cancer, venues with a mean age > 50, lower SP, and a history of more CSE identify populations at higher risk. Only a history of changing moles significantly correlated with the presence of a SPLG lesion. Public awareness programs should continue to highlight that a changing lesion or mole should prompt urgent examination.

Commercial Support: None identified
Increased dermatologist density associated with reduction in melanoma mortality

Aneja, Bordeaux, Aneja

Presentation Time: Thursday, August 4, 2011 from 1:50:00 PM to 1:55:00 PM

We sought to determine the association between dermatologist density and melanoma mortality in US counties. We also examined the effect of age, race, education, income, unemployment rate, health insurance rate, density of primary care physicians, melanoma incidence, county demographics (metropolitan vs. non metropolitan), access to hospitals with oncologic services and health professional shortage area classification on melanoma mortality. Data were collected from the Area Resource File, US Centers for Disease Control, and National Cancer Institute’s Surveillance, Epidemiology, and End Results and National Program for Cancer Registries. Multivariate analysis demonstrated that the presence of >0 to 1 dermatologist per 100,000 people was associated with a 35% reduction in melanoma mortality (95% CI 13.4% to 56.6%) when compared to counties with no dermatologist. The presence of >1 to 2 dermatologists per 100,000 people was associated with a 53% reduction in melanoma mortality (95% CI 30.6% to 75.4%). Having more than 2 dermatologists per 100,000 people did not further decrease melanoma mortality. Melanoma mortality was also decreased in metropolitan counties (30.3%, 95% CI 17.3% to 43.3%) and in counties where there are hospitals with oncology departments (1.9%, 95% CI 0.6% to 3.1%). Melanoma mortality rates were increased in counties with higher incidence of melanoma (2.3%, 95% CI 1.6% to 3.1%), greater Caucasian population (1.5%, 95% CI 1.1% to 1.9%), and greater health insured populations (1.5%, 95% CI 0.2% to 2.8%). Age, education, income, primary care provider density, health professional shortage area classification, and unemployment rate were not associated with melanoma mortality. In conclusion, we found that a greater dermatologist density is associated with a significant reduction in melanoma mortality when compared to counties that lacked a dermatologist.

Commercial Support: None identified
P1202: Cosmetic and non-cosmetic skin-related procedures performed in the United States: A 12-year analysis

Ahn, Davis, Feldman, Dabade

Presentation Time: Thursday, August 4, 2011 from 2:00:00 PM to 2:05:00 PM

Background: Demand for dermatologic care is increasing, and there is a shortage of dermatologists to meet these demands. The provision of dermatologic procedural care and the different physician specialties performing this care is not well characterized. Purpose: We sought to determine the frequency of cosmetic and non-cosmetic dermatologic procedures performed by U.S. physicians between 1995 and 2008. We examined changes in the number of procedures performed and the experience of different physician specialties with treating skin-related diseases. Methods: Using National Ambulatory Care Survey (NAMCS) data from 1995-2004 and 2007-2008, cosmetic and non-cosmetic dermatologic procedures were identified using International Classification of Diseases diagnosis and procedure codes related to skin and subcutaneous tissues. Sampling weights were applied to achieve nationally representative estimates. Results: During the 12-year study period, an estimated 298 million total dermatologic procedures were performed. The number of dermatologic procedures increased over time (p<0.001). Most procedures were performed by dermatologists (55%) and general/family practitioners (19%). Dermatologists performed most local excisions & destructions, skin biopsies, chemosurgery of the skin, and injection or tattooing of skin lesions, whereas general/family practitioners performed a greater proportion of nailbed removal, incision and drainage, and skin closure procedures. Between 1995 and 2008, the number of procedures done per dermatologist increased nearly two-fold, but remained constant for general/family practitioners. Cosmetic procedures constituted 9% of skin procedures, of which 42% were performed by dermatologists, and 26% by plastic surgeons. The annual frequency of cosmetic procedures also increased over time (p<0.001). Botulinum toxin injections were the most common cosmetic procedure and the fifth-most common skin-related procedure overall. The number of botulinum toxin injections increased over time, while soft tissue fillers and hair transplantation decreased. Conclusions: Dermatologists are performing more procedures than in the past and on average have the most experience performing four of the top ten common skin procedures. The experience of dermatologists in performing cosmetic procedures is increasing at a greater rate than non-cosmetic procedures.

Commercial Support: None identified
P1203: Time series study of reasons for non-compliance with biologic treatments in psoriasis patients over three years

Carter, Freedman, Martin

Presentation Time: Thursday, August 4, 2011 from 2:10:00 PM to 2:15:00 PM

Objective: To assess reasons for and identify trends of non-compliance with biologic treatments in patients with psoriasis (PsO) over a three-year period. Methods: A time series study was performed using data from internet-based cross-sectional surveys of PsO patients conducted from March to April in 2008, 2009, and 2010. Patients included in the study at each time point were aged ≥18 yrs and had a self-reported physician diagnosis of PsO. Demographics and self-reported disease severity (mild, moderate, severe) were reported. Patients were asked to identify reasons for non-compliance as defined as skipping injections or infusions of biologics at each time point. Results: Sample sizes were comparable at each time point (n=1,006; 1,003; and 1,017 for 2008, 2009, and 2010, respectively). Mean time diagnosed with PsO was 17 years at each time point; proportion of female patients spanned 57%-59%. The ranges of self-reported disease severity were: mild (51-60%), moderate (35%-42%) and severe (5%-7%). There was a declining trend in the proportion of biologic users at each time point (16%, 13%, and 11% for 2008, 2009, and 2010, respectively). Among biologic users, 28%, 32%, and 32% of patients reported skipping injections or infusions in 2008, 2009, and 2010, respectively. Forgetfulness was frequently cited by patients as a top reason for non-compliance at each time point (26-32%), and was the top reason for all years in aggregate. Other non-clinical reasons for non-compliance included a dislike of getting an infusion or injection, not having the medication on-hand, and cost. There was no apparent trend in the frequency of other non-clinical reasons cited for non-compliance at each time point. Conclusions: Despite an observed declining trend in the proportion of current biologic users participating this time series study from 2008-2010, approximately one-third of users consistently reported behaviors of non-compliance with treatment. The primary reason for non-compliance was forgetfulness. As new PsO treatments emerge, those treatments with characteristics that may optimize compliance, such as less frequent dosing, can fulfill an unmet need. Overall treatment strategies aimed at addressing the underpinnings of non-compliance may positively impact patient outcomes. Further studies are needed to quantify the clinical and economic consequences of non-compliance with biologics in PsO patients.

Commercial Support: 100% sponsored by Centocor Ortho Biotech Services, LLC
Objective: Injectable biologic medications used in psoriasis (PsO) may be administered by health care professionals (HCP) or self-administered with varying dosing frequency. This study assessed preferences for method of administration and administration frequency of injectable biologics and identified concerns with self-injection in PsO. Methods: Data from the Psoriasis Patient Study Project (cross-sectional Internet survey) conducted March-April 2010 were used. Invitations were sent to participants aged ≥ 18 years who self-reported a physician diagnosis of PsO. Patients were asked to make preference-based choices between self-injection every other week and: a) self-injection every week at home or b) injection five times per year at a doctor’s office. Results were stratified by biologic use [ever taken or recommended a biologic (all), current biologic users (BIO), non-biologic user previously taking or recommended a biologic (non-BIO)]. Patients reporting concerns with self-injection, regardless of qualification for the preference-based choice analysis, were asked to specifically describe them. Results: A total of 1,017 panel members responded (57% female; mean age=53 yrs; mean 17 years diagnosed with PsO). 227 patients qualified as ever taken or recommended a biologic and completed the preference-based choice analysis (BIO=109, non-BIO=118). The majority of all, BIO, and non-BIO patients reported preferring self-injection every other week to self-injection weekly (63% vs. 13%, 69% vs. 17%, and 57% vs. 8%, respectively). The proportions of patients reporting a preference for injection five times per year at a doctor’s office when compared to self-injection every other week were 48% vs. 36%, 43% vs. 44%, and 52% vs. 29% for the all, BIO, and non-BIO groups, respectively. Of the 1,017 panel members responding, 47% (n=480) reported concerns with self-injection. Lack of experience (68%), lack of confidence (56%), feel of needle stick (50%), and fear of pain (41%) were most frequently reported. Conclusions: Overall, more patients preferred HCP-administered injection five times per year relative to self injection every other week, and fewer patients preferred weekly self injection, in this patient preference study. Nearly half of all PsO patients reported concerns with self-injection. Incorporating patient preferences for the method and frequency of administration for injectable biologics, in PsO treatment decisions, may improve clinical outcomes.

Commercial Support: 100% Centocor Ortho Biotech Services, LLC
Objective: In 2008, the International Psoriasis (PsO) Council Topical Therapy Working Group published a framework for health care providers to understand barriers and improve patient adherence with topical medications. Limited data quantify adherence with prescription oral (Rx/Oral) or topical (Rx/Topical) medications in PsO patients residing in the United States. The aim of this study was to measure levels of patient adherence to Rx/Oral or Rx/Topical treatments among mild, moderate, and severe PsO patients.

Methods: An internet-based cross-sectional survey of PsO patients using Rx/Oral or Rx/Topical treatments was conducted from March to April 2010. Patients included in the study were aged ≥18 yrs and had a self-reported physician diagnosis of PsO. Demographics, self-reported disease severity (mild, moderate, severe), topical treatment application time, and levels of adherence to oral or topical treatments were assessed. Adherence levels were measured by the Modified Morisky Adherence Scale (scores range from 0 to 8; low=<6, medium=6 to<8, high=8). A medication hierarchy was used to group patients into mutually-exclusive categories: Rx/Oral or Rx/Topical (e.g. patients using both were only included in the RX/Oral group). Percentages exceed 100% due to rounding.

Results: A total of 401 PsO patients receiving Rx/Oral (n=43) or Rx/Topical (n=358) completed the survey (58% female; mean age=54 yrs; mean duration of Rx/Oral or Rx/Topical use = 37 and 48 months, respectively). Of all Rx/Oral or Rx/Topical users, 67% reported low, 28% reported medium, and 5% reported high adherence. Mild and moderate PsO groups had greater proportions of patients with low adherence compared to severe PsO (65%, 71%, and 50%, respectively). Rx/Topical users had a significantly greater proportion of patients with low adherence compared to Rx/Oral users (70% vs. 40%; p<0.05). Rx/Topical users applied treatments a mean of 1.6 times in a typical day. The number of daily applications did not vary by PsO severity, but application time increased with severity.

Conclusions: Nearly 95% of mild and moderate PsO patients reported low or medium adherence to either Rx/Oral or Rx/Topical treatments. Low adherence appeared to be more pronounced for patients using Rx/Topicals and for patients with mild or moderate disease. Application time may be a barrier to increased adherence. There is a need for newer treatment options to improve adherence in these patient types.

Commercial Support: 100% Centocor Ortho Biotech Services, LLC
**P1206: Are urgent referrals actually urgent? Findings from a newly-established dermatology urgent care clinic**

Kardos, Kimball, Robinson, Roh

**Presentation Time: Thursday, August 4, 2011 from 2:40:00 PM to 2:45:00 PM**

Background: An urgent dermatology care clinic was established to provide timely access to care for those in need. There was concern when initiating the clinic that the service would be misused; that referrals would include non-urgent issues. Previous review of the referrals showed unknown rash, new lesion, mole/nevus and changing lesion as the top 4 referring concerns. 

Objective: To determine whether concerns being referred are urgent based on diagnostic coding. 

Methods: A review of 500 urgent referrals to the Department of Dermatology at Massachusetts General Hospital was completed. This included 250 documented urgent referrals from 2008-2009 and 250 from 2010. The ICD-9 codes from the respective clinic visits were obtained. 

Results: From the 500 urgent referrals reviewed, 614 ICD-9 codes were recorded, for 99 different diagnoses. 121 of the 500 referrals did not have corresponding billing codes, suggesting that 379 of the 500 urgent referrals were actually seen in clinic. The average number of diagnoses billed for each patient was 1.48 in 2008 and 1.75 in 2010. In 2008 and 2010, the top 10 billing diagnoses included: dermatitis, contact, allergic, irritant and unspecified; benign neoplasm, seborrheic keratosis, non-irritated; malignant neoplasm; viral warts, unspecified; actinic keratosis and lentigo benign, pigmentation disorders, melasma. In 2008, the top 10 diagnoses also included psoriasis; other specified disorders of the skin/epithelial hyperplasia and seborrheic keratosis, inflamed, irritated, while in 2010 the remaining 3 were hemangioma, cherry angioma; dermatoheliosis and cyst. These results suggest consistency over time as 7 of the top 10 diagnoses billed in 2008 and 2010 were the same. When grouped, without specifying location, “benign neoplasm” was coded for 64 times, while “malignant neoplasm or melanoma” was coded for 33 times. Of the 379 urgent referrals seen in clinic, 8.7% were coded as malignant neoplasm/melanoma. 

Conclusion: Although the most common referring concerns were new lesion, changing lesion, mole/nevus or unknown rash, the majority of the diagnoses billed after the urgent visit appear to be benign in nature. The number of malignant neoplasms diagnosed, however, warrants continued use of an urgent care clinic. Further research to determine the diagnostic accuracy of the referring concerns may help to better delineate benign from urgent matters, so as not to overwhelm the system.

Commercial Support: None identified
P1300: A case of lipoid proteinosis with oral ulcerative lesion

Arca, Dincer, Koc, Acikgoz, Turan

Presentation Time: Thursday, August 4, 2011 from 2:50:00 PM to 2:55:00 PM

Introduction: Lipoid proteinosis (LP) is a rare autosomal recessive genodermatosis characterized by deposition of amorphous hyaline material in different parts of the body, especially in the skin, mucous membranes of the upper aero-digestive tract, and internal organs. It is also known as “Urbach-Wiethe disease” or “Hyalinosis Cutis at Mucosae”. Case Presentation: A 22 years old man complained about papulovesicular lesions on his face and extremities which showed a delayed healing time with scar formation. Also, he had papular lesions on his eyelid margins and hoarseness of voice since at birth. In addition, he complained about recurrent ulcerative lesion on his tongue. His mental development and systemic examination were normal. On his dermatological examination, his skin was dry and rough. He had hyperkeratosis of his hands, elbows, and knees. Bilateral beaded papules were present on the margins of his upper and lower eyelids. 2x2.5 cm. acneiform scar on his right cheek was present. In addition, he had scars on his upper and lower extremities. His lips were fissured and his tongue was diffusely thickened. He had a painful ulcerating lesion on the dorsum of his tongue. Videolaryngoscopical examination showed wide plaques on his epiglottis and arytenoids. Routine blood tests, radiographs of the chest and skull, electrocardiogram, and colonoscopy were all normal. His skin histopathology from the dorsum of his right hand showed precipitation of PAS-positive eosinophilic material in papillary dermis. Conclusion: Occurrence of LP is rare. To our knowledge, only two cases were reported in previous literature on LP associated with oral ulcerative lesions. Herein we reported an unusual case of a patient with LP with oral ulcerative lesion who also includes all characteristics of the disease.

Commercial Support: None identified
HAIR & NAIL DISORDERS - Thursday, August 4, from 3:00PM to 3:25PM

P1400: Oral supplementation of silicon and its impact on quality of hair

Villa, Bombonatti, Salviano, Müller, Nakanishi

Presentation Time: Thursday, August 4, 2011 from 3:00:00 PM to 3:05:00 PM

Background: we evaluate the impact of silicon supplementation on the quality of hair. Materials and methods: hair from 34 women aged between 17 and 57 years. Patients who participate in the study answered a questionnaire on quality of hair. They were instructed to don’t modify diet, daily activities and medications. Women who made use of any medication that could alter the variables addressed in the study were excluded, such as vitamins and other supplements. We analyzed the hair of an area equivalent to 1 cm² after shaving (occipital prominence). We used the technique of spectrophotometry to measure the ability of the hair to preserve proteins under conditions of physical and chemical stress before and after 5 months of treatment. Hair growth was evaluated monthly before (3 months) and during treatment. We calculated the average growth before and during treatment. Patients received the dose of 30 mg of organic silicon during 5 months. Evaluation of protein loss was performed, dividing hair samples into 6 groups: before and after treatment and increased, stable or decreased hair growth (comparing before and after treatment). To perform the quantification of protein loss, we dispersed 100 mg of hair in 15 ml of distilled water in test tube. This sample underwent ultrasound bath for 40 minutes. After the extraction procedure, the suspensions obtained were filtered and an aliquot of 2.0 ml of the filtrate of each sample was removed and subjected to protein quantification assay. With the results of the absorbance readings and using the equation of the calibration curve, the concentrations of protein were determined. Results: 83% of patients felt that there was overall improvement in the quality of hair during treatment. In 79.41% of patients, there was an increase in the rate of hair growth and an overall 37.6% increase in average speed of hair growth. This increase in the rate of hair growth was significant after statistical analysis. Protein loss analysis demonstrated that the group whose hair grew the most, least protein lost, but, even samples belonging to that group in which growth was decreased, we observed reduction in protein loss. Conclusion: It is suggested that silicon has a beneficial role in hair, leading both to increased growth and increased resistance to aggression. The results suggest the need for larger and more detailed studies.

Commercial Support: None identified
Investigation of serum vitamin D levels in patients with scarring and nonscarring alopecia

Dawes, Piliang, Atanaskova-Mesinkovska, Bergfeld

Presentation Time: Thursday, August 4, 2011 from 3:10:00 PM to 3:15:00 PM

Background: Vitamin D hormone and its receptor are known to have a variety of effects on hair. Previous studies have shown that 1,25-hydroxyvitamin D can promote differentiation of keratinocytes in hair follicle bulbs into hair follicle keratinocytes and promote movement into the anagen phase, a period of rapid hair growth. Additionally, mice that lack the vitamin D receptor develop post natal alopecia, supporting the role of vitamin D in hair cycling and indicating that its deficiency may play a role in the pathogenesis of hair loss.

Objective: To evaluate the serum Vitamin D concentration in an ethnically diverse cohort of patients with four different types of alopecia: androgenetic alopecia, central centrifugal cicatricial alopecia, lichen planopilaris, and telogen effluvium.

Methods: Retrospective evaluation of patients who presented with CCCA to the Cleveland Clinic in 2009-2010 and had 25-hydroxyvitamin D (Vitamin D) levels measured during a new or recurrent episode of hair loss. Vitamin D deficiency was defined as Vitamin D levels < 30 ng/ml, based on previously established definitions, and rated as mild (21-30 ng/ml), moderate (12-20 ng/ml), or severe (<12 ng/ml). We compared the odds of vitamin D deficiency in patients with different types of alopecia and analyzed the significance of age and race on vitamin D deficiency.

Results: The prevalence of vitamin D deficiency was noted to be high in this study population of patients with alopecia. Of the total number of patients with alopecia, 64.9% had serum Vitamin D levels < 30 ng/ml, with 14.21% classified as severely deficient (12 ng/ml). The median age of patients at the time of diagnosis was 49.6 years of age and 89% were females. Males with hair loss had greater odds of being vitamin D deficient than females. The odds of being Vitamin D deficient were higher in African American and Asian patients with alopecia when compared to Caucasians. Conclusion: Vitamin D deficiency is highly prevalent in patients with alopecia although the benefit of vitamin D supplementation on improving hair loss remains to be seen.

Commercial Support: None identified
P1402: Assessing vitamin D levels in alopecia areata patients

Adenuga, Dawes, Piliang, Mesinkovsca, Bergfeld

Presentation Time: Thursday, August 4, 2011 from 3:20:00 PM to 3:25:00 PM

Alopecia areata (AA) is an often recurrent form of non-scarring hair loss affecting hair-bearing skin, with a 0.1-0.2% disease prevalence in the US that constitutes between 0.7-3% of patients seen in dermatology clinics. The lesions are often asymptomatic, with occasional pain, burning and pruritus; but the condition can cause significant emotional and psychosocial distress in those affected. It is currently considered to be an autoimmune disease and is often associated with other autoimmune conditions like thyroid diseases and vitiligo; and immunologic, genetic and environmental factors have been implicated in its pathogenesis. The role of various factors such as serum ferritin, iron, vitamin B12 and folate as possible triggers have been investigated with controversial results; and the vitamin D receptor has been implicated in hair follicle maintenance. We therefore sought to investigate the prevalence of vitamin D deficiency in alopecia areata patients. We performed a retrospective chart review with IRB approval, using the ICD9 diagnostic codes for alopecia areata at the Cleveland Clinic department of dermatology, to investigate whether the condition is associated with an increased prevalence of vitamin D deficiency. We analyzed the records of alopecia areata patients (n=77) seen in the clinic during the period of 2009-2010, with serum vitamin D values measured within 3 months of a new or recurrent episode, excluding those already on oral vitamin D. The serum vitamin D levels were measured at the CCF laboratories using Diasorin Liaison chemiluminescence immunoassay. We also chose the threshold of normal versus deficient/insufficient levels at 30ng/mL, with mild vitamin D deficiency being 20-30 ng/ml, moderate deficiency 12-20 ng/ml, and severe deficiency < 12 ng/ml. Gender and racial differences were also considered in analyzing the data obtained. The statistical tests were all 2-sided and performed at a significance level of 0.05. The results obtained showed an increased prevalence of vitamin D deficiency among alopecia areata patients. We also found a surprisingly significant increase in vitamin D deficiency prevalence among male patients compared with females counterparts. The results obtained suggest that vitamin D deficiency/insufficiency may be associated with the pathogenesis of alopecia areata. The lack of a comparable control group limits the results obtained in this study.

Commercial Support: None identified
Background: cutaneous leishmaniasis is a major world problem. Several types of treatment regiments have been suggested, but none of them have been shown to be superior to others. Imiquimod demonstrated a leishmanicidal activity by increasing local cytokine production. Objective: To determine the efficacy of topical imiquimod 5% (Aldara) with cryotherapy vs. intralesional meglumine antimoniate in treatment of anthroponotic (dry type) cutaneous leishmaniasis. Methods: This is a Prospective, randomized, open trial study from September 2008 to September 2010 including 50 patient (25 patients in the combined imiquimod and cryotherapy group and 25 patients in the intralesional meglumine antimoniate group in Kerman, Iran). Patients were randomly assigned to receive combined cryotherapy biweekly with imiquimod three times per week or intralesional meglumine antimoniate weekly until complete cure or up to 12 weeks, whichever earlier. The primary end point was clinical cure, defined as complete re-epiteliialization of 100%, complete flattening induration compared with baseline at weeks 2,6,12. Results: 50 participants divided into 25 patients in group A and 25 patients in group B completed the study. Complete cure was 65.5% (16/24 lesions) in group A and 83.3% (19/23 lesions) in group B. No complication was detected in patients treated with meglumine antimoniate. Pain and eczematous reaction were reported in 4 patients and local infection in 1 patient treated with imiquimod. Conclusion: This study revealed no significant difference in clinical response between combination of imiquimod and cryotherapy and intralesional meglumine antimoniate in patients with cutaneous leishmaniasis in an endemic area of L. Tropica. Key words: Cutaneous leishmaniasis, imiquimod, cryotherapy, meglumine antimoniate.

Commercial Support: None identified
P1501: Case reports of lip leishmaniasis in pediatric patients

Dabiri, Shamsi Meymandi

Presentation Time: Thursday, August 4, 2011 from 3:40:00 PM to 3:45:00 PM

Leishmaniasis is a vector born disease caused by the Leishmania spp. The clinical manifestations of leishmaniasis depend on complex interactions resulting from the parasitic species, invasiveness, and pathogenicity of host genetically determined immune response. Clinically, leishmaniasis is divided into visceral, cutaneous (CL) and mucocutaneous types. Mucocutaneous leishmaniasis (espundia) caused by Leishmania braziliensis as a new world Leishmaniasis and is endemic in most areas of South America. Mucosal Leishmaniasis is also observed in some patients with visceral leishmaniasis, particularly those suffering from concurrent HIV infection. In the old-world leishmaniasis, mucosal involvement is rare. It may happen because of contiguous spread of cutaneous lesions caused by L. tropica or other Leishmania spp. Mucosal leishmaniasis (ML) while an important problem in Latin America, is rarely encountered in Iran. We describe 4 children with lip mucosal Leishmaniasis which were diagnosed on the basis of clinical and histopathological findings. As long as there is no symptom as pain and itching pediatric dentist must be aware of this problem to consult with infectious specialist.

Commercial Support: None identified
**P1502**: Secondary syphilis presenting with clinical features of adulthood atopic dermatitis

Borges-Costa

**Presentation Time: Thursday, August 4, 2011 from 3:50:00 PM to 3:55:00 PM**

Syphilis incidence is growing in Western Europe, mainly due to an increase in men who have sex with men, and it remains an important risk factor for HIV transmission throughout the world. A 42 years-old male patient recurred to our outpatient clinic with erythematous papules and plaques, with scaling, localized to the neck, antecubital and popliteal fossae. The lesions had one month duration and a symmetric distribution. The patient complained also of a mild pruritus and had applied, without clinical response, topical corticosteroids and emollients prescribed by other doctors. He had no personal or familiar history of atopy but reported an unprotected receptive anal intercourse, three months previously to the lesions first appearance. However, he did not notice any anogenital ulcer and had no current sexual partner. A generalized enlargement of lymph nodes was found on clinical examination and the serologic tests demonstrated a positive TPHA and a VDRL titer of 1/32. The HIV serology was negative and a single dose of 2.4 million units of benzathine penicillin was given to the patient. He reported a Jarisch-Herxheimer reaction and both the skin lesions and palpable lymph nodes disappeared within three days after treatment. Partner referral was not possible because the patient did not have any actual contact or address of his previous sexual partner. Syphilis, a disease also known as the great imitator, can mimic clinical patterns of other dermatoses. Dermatologists must not forget it in the differential diagnosis and be familiar with the protean manifestations of secondary syphilis.

Commercial Support: None identified
Mixed cutaneous infection by bacteria, mycobacterium and funghi are rare in immunocompetent hosts but can be observed after traumatic implantation. We present a 32-year-old male patient, employee in a pet shop that was referred to our hospital with an eritematous plaque on the dorsum of the third finger of his left hand as a result of a work accident – discharging tropical fish - four months ago. He was previously medicated with topical fusidic acid ointment and doxycycline 100mg bid without clinical response. A bacterial culture was performed and Pseudomonas aeruginosa was isolated, sensible to ciprofloxacin. Mycobacterial and mycology cultures were both negative. Since no clinical improvement was observed with ciprofloxacin we repeated again mycobacterial and mycology cultures. Growth was observed in Löwenstein-Jensen medium with positive PCR for Mycobacterium spp. The patient started then claritromicin 500mg bid with partial response. Meanwhile, mycology cultures became positive for Hormographiella spp and the patient was given terbinafin with good clinical response that had to be stopped due to adverse drug reaction. Therapy was changed to itraconazol 100mg daily with complete resolution of the lesion. In our patient, we isolated P. aeruginosa, Mycobacterium which species we couldn’t define, and lastly a rare cause of fungal infection, Hormographiella spp- mostly found on sewage. These three different agents could have been acquired after a traumatic implantation. As a matter of fact, perseverance on searching and culturing played an important role to solve this mixed cutaneous infection in an immunocompetent host.
INFECTION — FUNGAL - Thursday, August 4, from 4:10PM to 4:35PM

**P1600:** Naftifine 2% cream has demonstrated safety in the treatment of tinea pedis, tinea cruris and tinea corporis

Parish, Olayinka, Hardas, Routh, Parish

**Presentation Time: Thursday, August 4, 2011 from 4:10:00 PM to 4:15:00 PM**

**Background:** Naftifine 2% cream (NAFT-2) is under development for the treatment of tinea pedis, tinea cruris and tinea corporis in the United States.  

**Objective:** Review the safety data from the clinical development program of NAFT-2.  

**Methods:** The clinical development program for NAFT-2 included three Phase 1 open-label studies (maximal use: N=21, phototoxicity: N=33, photoallergenicity: N=56), one single-blind, assessor blind randomized controlled study (sensitization/irritation: N=250) and 2 double-blind placebo controlled Phase 3 studies (tinea pedis N=707 and tinea cruris N=334).  

**Results:** NAFT-2 was shown to have a low propensity for irritation in clinical use and would not be classified as a primary sensitiser. There was no evidence of phototoxicity or photoallergenicity. In the Phase 3 studies, treatment-related treatment emergent adverse events (TEAEs) occurred in 4.8% (19/400) of NAFT-2 subjects, 3.8% (9/236) of NAFT-1 subjects and 5.4% (22/405) of placebo subjects. The three most commonly reported study drug-related TEAEs in the NAFT-2, naftifine 1% and placebo groups included application site pruritus (1.8%, 0.4% and 1.7%, respectively), application site dryness (0.8%, 0.4% and 0.5%, respectively) and application site irritation (0.5%, 1.7% and 1.7%, respectively). The overall adverse experiences with subjects treated with NAFT-2 for tinea pedis and tinea cruris were similar in the Phase 3 studies. There was no evidence of systemic toxicity for NAFT-2. There was no evidence of an effect of NAFT-2 on vital signs, clinical chemistry, or hematology safety laboratory assessments.

**Conclusions:** This clinical development program demonstrates that NAFT-2 can be used safely by adolescent and adult patients with tinea pedis, tinea cruris and tinea corporis.  

**Commercial Support:** This research was funded by Merz Pharmaceuticals, LLC.
P1601: Naftifine 2% cream demonstrates a low propensity for irritation and no evidence of phototoxicity or photoallergenicity potential

Pappert, Olayinka, Hardas, NULL, NULL, NULL

Presentation Time: Thursday, August 4, 2011 from 4:20:00 PM to 4:25:00 PM

Background: Naftifine 2% cream (NAFT-2) is under development for the treatment of tinea pedis, tinea cruris and tinea corporis in the United States. Objective: Review the results from studies conducted evaluating irritation/sensitization (single-blind, assessor-blind), phototoxicity and photoallergenicity (open-label) conducted using NAFT-2. Methods: Irritation/Sensitization Study: The sensitization potential and degree of skin irritation from NAFT-2 on intact skin of healthy volunteers was evaluated using 3 test articles: 1) NAFT-2; 2) positive irritant control sodium lauryl sulfate 0.05% (w/v), USP in sterile, distilled water for injection, USP (positive control) and 3) negative irritant control, distilled water for injection, USP (negative control). Phototoxicity: The phototoxicity potential of NAFT-2 was evaluated by comparing responses of test sites with test product alone, test product irradiated and no treatment. Photoallergenicity: The photoallergenicity potential of NAFT-2 was evaluated by comparing responses of sites with test product alone, test product irradiated with UVR and no treatment.

Results: Irritation/Sensitization: NAFT-2 demonstrated irritation responses similar to, but slightly greater than, the negative irritation control suggesting it has a low propensity for irritation in clinical use. One subject demonstrated a potential sensitization response in the challenge phase to NAFT-2. In the re-challenge, no sensitization reaction was observed for this subject. The AEs reported were mild to moderate in intensity; no serious AEs were reported. Phototoxicity: There were no irritation grades > 2 and relatively few instances of grade = 2 (no difference between NAFT-2 and irradiated control). Photoallergenicity: For sites treated with NAFT-2, there was only one irritation grade > 2 (grade 3) that occurred during the induction phase and was not considered significant. For UV irradiated Control sites, there were three irritation grades > 3 (grade 4). These were not considered significant. Conclusions: Irritation/Sensitization: The data indicate that NAFT-2 would not be considered as a primary sensitizer nor would it likely demonstrate a maximal population rate of 1.5% likelihood for observing sensitization in clinical use. Phototoxicity/Photoallergenicity: In this study, NAFT-2 did not show evidence of phototoxicity or photoallergenicity potential.

Commercial Support: This research was funded by Merz Pharmaceuticals, LLC.
**P1602:** Naftifine 2% cream has demonstrated effectiveness in the treatment of tinea pedis and tinea cruris

Parish, Olayinka, Hardas, Routh, Parish

**Presentation Time: Thursday, August 4, 2011 from 4:30:00 PM to 4:35:00 PM**

**Background:** Naftifine 2% cream (NAFT-2) is under development for the treatment of tinea pedis, cruris & corporis in the US. However, due to agreements with the FDA, efficacy studies specifically for tinea corporis were not deemed necessary. **Objective:** Review the efficacy data from the clinical development program of NAFT-2 which includes one open-label Phase 1 study (maximal use N = 21) & 2 double-blind placebo controlled Phase 3 studies (tinea pedis N=707 & tinea cruris N=334). **Methods:** NAFT-2 was applied topically to the affected area applied daily for 2 weeks (wks). The primary efficacy endpoint for all studies was the % of subjects with a complete cure (mycological & clinical cure) at Wks 2 & 4 (maximal use: tinea cruris & tinea pedis), Wk 6 (tinea pedis) & Wk 4 (tinea cruris). Patients in the maximal use study were evaluated at Wk 2 & 4. Patients in the tinea pedis study were evaluated at Wks 2, 4 & 6 & patients in the tinea cruris study were evaluated at Wks 2 & 4. Efficacy was assessed only among subjects who had positive culture results at baseline. Patient satisfaction was assessed as excellent improvement, much improved, improved, no change or worse. **Results:** A total of 1064 subjects were randomized in the 3 studies with 718 completing (58.3% tinea pedis; 85.3% tinea cruris & 100% maximal use). The study population was predominantly male (75.7%), between 18 & 64 years of age (91.1%), White (53.4%), Hispanic (40.4%) or African American (34.3%). In the maximal use study complete cure of tinea cruris was shown in 7/21 (33.3%) subjects & 12/21 (57.1%) subjects at Wk 2 & 4, respectively. Complete cure of tinea pedis was shown in 1/21 (4.8%) subjects & 3/21 (14.3%) subjects at Wk 2 & 4, respectively. Superiority of a complete cure (LOCF) with NAFT-2 over placebo was demonstrated for tinea pedis at Wk 6 (17.7% vs 7.1%, respectively, one sided p=0.010) & for tinea cruris at Wk 4 (25.3% vs 2.3%, respectively, one-sided p<0.001). Statistically significant differences between the NAFT-2 & placebo treatment groups were observed by subjects for improvement (improved, much improved, or excellent improvement) of tinea pedis at Wk 6 (92.6% vs 71.4%, p<0.001) & for improvement of tinea cruris at Wk 2 (95.9% vs 69.4%, p<0.001) & Wk 4 (92.7% vs 66.6%, p<0.001) **Conclusions:** In this development program, NAFT-2 applied topically was effective in providing, and sustaining over time, clinically meaningful treatment for tinea pedis & cruris.

**Commercial Support:** This research was funded by Merz Pharmaceuticals, LLC.
INTERNAL MEDICINE DERMATOLOGY - Thursday, August 4, from 4:40PM to 5:05PM

P1700: Necrolytic acral erythema sine hepatitis C infection: A distinct entity or clue to etiology?

Etzkorn, Patel, Fenske

Presentation Time: Thursday, August 4, 2011 from 4:40:00 PM to 4:45:00 PM

Background: Necrolytic acral erythema (NAE) is an uncommon dermopathy that was initially described in Egypt in 1996. It typically occurs in middle-aged adults, has a striking predilection for acral surfaces, and is typically accompanied by active hepatitis C virus (HCV) infection. Case Report: A 62 year old Caucasian female presented with a 3 week history of a symmetric rash on bilateral lower extremities. Initially, she noted erythema over her distal dorsal feet. Over the following 2 weeks, the eruption became painful and progressively spread over bilateral dorsal feet and began to involve her anterior legs and knees. The patient had been receiving 60 mg of prednisone daily from an outside dermatologist with no appreciable response. Her social history was significant for heavy alcohol use and poor nutritional intake. Physical exam revealed a cachectic female with well-demarcated, symmetric, erythematous erosions and superficial desquamation over bilateral dorsal feet. Erythematous plaques were also present on bilateral anterior legs and knees. No intact bullae were present. Punch biopsies were obtained for histopathologic evaluation; they showed areas of hyperkeratosis, spongiosis, focal necrosis of the epidermis, areas of detachment of the epidermis from the underlying dermis, extravasated red blood cells, angioplasia, and a superficial perivascular lymphocytic infiltrate. Ballooned keratinocytes without specific viral changes in the superficial dermis were also noted. Laboratory analysis revealed a serum zinc level of 58 mcg/dL (normal, 60-130 mcg/dL) and negative HCV serologies. Supplementation with oral zinc was commenced with complete and rapid resolution of the rash.

Discussion: Knowledge of NAE as a cutaneous maker for HCV infection is vital for management and detection of previously unrecognized HCV infection. However, similar to our patient, there have been a few case reports of NAE patients seronegative for HCV; it is unclear if these patients represent a distinct disease entity or simply a subset of NAE. Patients with and without active HCV infection appear to benefit from zinc supplementation, and recent research has demonstrated that both serum and skin zinc levels are often low in NAE patients. Further research is warranted to definitively elucidate the pathogenesis of this condition.

Commercial Support: None identified
P1701: Sweet syndrome with vasculitic pattern in a patient with Poems syndrome

Uva, Filipe

Presentation Time: Thursday, August 4, 2011 from 4:50:00 PM to 4:55:00 PM

POEMS syndrome is a very rare plasma cell lymphoproliferative disorder associated with polyneuropathy, organomegaly, endocrinopathy, monoclonal gammopathy and skin abnormalities. Skin lesions vary from localized to generalized hyperpigmentation, hypertrichosis, cutaneous angiomas, sclerodermoid changes including skin-thickening. Case report- A 53 year-old Caucasian patient with the diagnosis of POEMS syndrome established on the presence of hepatomegaly and splenomegaly, lymphadenopathies, Ig A-lambda monoclonal gammopathy, demyelinating peripheral and visceral neuropathies, hypothyroidism, testosterone deficiency and a single osteosclerotic lesion in the left iliac wing was admitted because of disseminated necrotizing vasculitis-like lesions over the abdomen, lower limbs and a cellulitis of the right leg. Skin biopsy and other laboratory findings were compatible with Sweet syndrome. The patient was submitted to treatment with piperacillin-tazobactam, prednisolone and lenalidomide. The skin lesions improved rapidly with the introduction of lenalidomide and prednisolone. Vasculitic lesions are not typically seen in Sweet syndrome, and when present are located over the dorsal aspects of the fingers and hands but other extensor surfaces may be involved. The presence of bullae and ulcerations are more common in malignancy-associated Sweet syndrome than in other forms of the disease. Sweet syndrome can be associated with multiple myeloma and or monoclonal gammopathies. This is the first case of POEMS syndrome associated with a vasculitic pattern of Sweet syndrome.

Commercial Support: None identified
P1702: Reactive perforating collagenosis: A case study

Gilles, Bazzo, Lopes, Mario, Santos

Presentation Time: Thursday, August 4, 2011 from 5:00:00 PM to 5:05:00 PM

INTRODUCTION: It is a rare skin disorder characterized by transepithelial elimination of altered collagen. Its etiology is unknown although it has been suggested that it might be a response to superficial trauma to the skin. Individuals with microvasculopathies seem to be more prone to this disorder and for this reason it is associated with diabetes mellitus, chronic renal failure and other chronic diseases.

HISTORY AND CLINICAL MANIFESTATIONS: A 36-year old male patient exhibiting umbilicated papules with a central keratotic plug (Fig. 1 and 2), pruritic lesions on the extremities for 8 months and suffering from diabetes (insulin-dependent) and chronic renal failure under control. Histopathological evaluation showed a focus of ulcers associated with extruded collagen fibers from the dermis compatible with reactive perforating collagenosis (Fig. 3 and 4). Lesions worsened with the use of corticosteroids.

DISCUSSION: Acquired reactive perforating collagenosis belongs to the spectrum of primary perforating skin disorders with transepidermal elimination. Most patients exhibit intense pruritus and Kobner phenomenon. Traumatic stimulation is believed to induce the excretion of degenerated collagen cells. Usually unresponsive to treatment, this condition worsens with the use of topical corticosteroids; however literature reports some cases evolving well with phototherapy. Efficient therapy should suppress pruritus thus inhibiting trauma stimulation and leading to the healing of lesions. Treatments with potentially harmful side effects should be avoided as this dermatosis is innocuous and interventions do not usually prevent new lesions.

CONCLUSION: Presentation of a very rare disease

Commercial Support: None identified
LYMPHOMA, CUTANEOUS/MYCOSIS FUNGOIDES - Friday, August 5, from 8:00AM to 8:15AM

P1800: Abnormal B-cell clone in the setting of cutaneous T-cell lymphoma

Egnatios, DiCaudo, Warschaw

Presentation Time: Friday, August 5, 2011 from 8:00:00 AM to 8:05:00 AM

A 54-year-old man presented for evaluation of an itchy and stinging red rash that had been present for 3 years. Initially, the eruption only involved the left leg, but over time the patient had developed similar lesions on the torso and remaining extremities. The face, groin, palms, and soles were spared. Prior to the current evaluation, the patient had seen two dermatologists and been told initially that the rash was eczema. Subsequent biopsies showed findings consistent with cutaneous T-cell lymphoma (CTCL). His physical examination revealed numerous pink-brown small and large confluent patches with fine white scale on the torso and extremities. A skin biopsy performed of the left upper arm showed an atypical lymphoid infiltrate. There were scattered intraepidermal collections of mononuclear cells. In the papillary dermis, there was a scant perivascular infiltrate of lymphocytes, some of which had mildly enlarged nuclei and perinuclear halos. The infiltrate was composed almost entirely of CD3-positive T-cells which coexpressed CD4, CD2, and CD5. CD7 expression was diminished. Clonal T-cell receptor gene rearrangement was detected. Flow cytometry did not show any evidence of a phenotypically abnormal T-cell population. However, an abnormal monoclonal B-cell population of the chronic lymphocytic leukemia (CLL) phenotype was seen comprising 17% of the lymphocytes and 5% of the total peripheral blood leukocytes. Complete blood count demonstrated an absolute leukocytosis with neutrophilia. Lactate dehydrogenase was within normal limits and chest x-ray demonstrated only fibrosis in the right lung base. Although the number of aberrant B-cells did not reach the full threshold for CLL in the blood, it did suggest the possibility. Recent studies have demonstrated a higher coincident rate than would be expected by chance of CTCL and leukemia, lymphoma, or plasma cell neoplasm, although it is extremely rare. It is speculated that therapies used to treat the first cancer; immunosuppression induced by the first malignancy itself or the treatment for it; a common precursor cell defect; genetically predisposing events, viruses, or carcinogens affecting both T- and B-cell lineages; or the cytokine milieu of the first cancer may contribute to the development of a second hematological malignancy. Additionally, several reports have found a T-cell functional abnormality in the peripheral blood of patients with CLL.

Commercial Support: None identified
Paniculitic-like T cell lymphoma of unusual presentation

Valente Duarte de Sousa, Alcala Perez, Vega Gonzalez

Presentation Time: Friday, August 5, 2011 from 8:10:00 AM to 8:15:00 AM

Introduction
Cutaneous lymphomas represent 75-80% of all cutaneous primary lymphomas. Subcutaneous Paniculitis-like T cell lymphoma is a subtype of primary lymphoma that that confined predominantly to the subcutaneous fat and that characteristically expresses T-αβ receptor, as well as CD3, CD4, CD7 y CD56. It usually presents in women 40-50 years of age as erythematous, recurrent and painful, subcutaneous nodules and plaques, in the lower extremities. This subtype of lymphoma usually has an aggressive course with poor response to treatment and fatal outcome. Case Report A 26-year-old female presented to our office with an erythematous plaque with vesicles on the surface located on the upper lip. A diagnosis of herpes simplex was made, and treatment with topical antiviral agents was initiated. Three weeks later the patient presented with the same lesions, this time, treatment was initiated with systemic antiviral agents. Nevertheless, a month later the lesions reappear, this time with dissemination to the rest of the face, progressive edema of the left cheek and papules. An incision biopsy was taken and a paniculitis-like T cell lymphoma was reported. Immunohistochemical examination revealed CD45-RO +, CD20-, CD56-, CD57-, CD34- immunophenotype. Treatment was initiated with CHOP (Cyclofosfamide, adriamicin, vincristine and prednisone), nonetheless the patient had progressive deterioration of general health, passing away three years after diagnosis. Conclusion We present the case of a young patient with diagnosis of centro-facial paniculitis-like T cell lymphoma with atypical clinical features, EBV + and a poor evolution.

Commercial Support: None identified
MELANOMA & PIGMENTED LESIONS - Friday, August 5, from 8:20AM to 8:45AM

P1900: Neonatal blue light phototherapy and melanocytic nevi: A twin study

Csoma, Tóth-Molnár, Oláh, Kemény, Széll

Presentation Time: Friday, August 5, 2011 from 8:20:00 AM to 8:25:00 AM

Background Blue light phototherapy has been widely and successfully used for the treatment of neonatal jaundice to reduce the plasma concentration of bilirubin and hence to prevent kernicterus. Its potential acute, short-term adverse effects are well known, and can be adequately treated in neonatal practice. On the other hand, much less is known as to its long term side-effects, and in particular only a few and controversial data are available in the literature as how blue light phototherapy influences melanocytic naevus development. A twin study was conducted with the purpose of attaining a better understanding of the role of neonatal phototherapy in melanocytic naevus formation.

Methods Fifty-eight pairs of twins and one set of triplet of Caucasian origin, aged 3-30 years were included in this cross-sectional study. One of the twin members had received phototherapy for neonatal jaundice, whereas the other had not. A whole-body skin examination was performed to determine the density of melanocytic skin lesions. The prevalence of benign ocular pigmented lesions was evaluated during a detailed ophthalmological examination. A standardized questionnaire was used to assess data relating to constitutional, sun exposure and other variables. To search for possible gene-environmental interactions involved in the appearance of pigmented lesions, the MC1R variants and the I439V polymorphism of HAL genes were also determined in the enrolled twins. Results Neonatal blue light phototherapy was associated with a significantly higher prevalence of both cutaneous and uveal melanocytic lesions. No association was found between the examined gene polymorphisms and the number of pigmented alterations in the examined study group. Conclusion These new epidemiological data suggest that neonatal blue light phototherapy could well be a risk factor for melanocytic naevus development. Having large numbers of melanocytic nevi is a relevant independent phenotypic risk factor for the development of malignant melanoma, so our data highlight the need for both the dermatological and ophthalmological screening of individuals with a history of neonatal blue light phototherapy. Phototherapy with blue light lamps is currently a standard and essential therapeutic modality in neonatal care; additional in vivo and in vitro studies are therefore necessary to establish its potential long-term adverse effects.

Commercial Support: None identified
P1901: Mitotic rate as a marker to assess tumor biology in single versus multiple primary melanoma

Hwa, Belitskaya-Levy, Stein, Price, Ma

Presentation Time: Friday, August 5, 2011 from 8:30:00 AM to 8:35:00 AM

Background: In multiple primary melanoma patients, the mean tumor thickness tends to decrease from the first to second melanoma. It is unclear whether the cause of the thinner subsequent melanomas is early detection, anti-tumor immune response as a result of the first melanoma, distinct tumor biology in multiple versus single primary melanomas, or a combination of the above. A recent study suggested that patients who did not adhere to regular follow-up had significantly thicker melanomas than patients who attended regular follow-up (de Giorgi et al, BJD 2010). We use mitotic rate to examine if tumor biology has an impact on the thickness of single (SPM) versus multiple primary melanoma (MPM).

Methods: 788 melanoma patients prospectively enrolled in an interdisciplinary database at NYU Medical Center from 2002-2008 were studied. Fisher’s exact test was used to compare patients with SPM versus MPM with regard to mitotic rate (recorded as either absent or present), and other demographic and tumor characteristics. A paired t-test was used to compare the thickness of the first primary melanoma with the thickness of the second primary melanoma, and the second primary melanoma with the third primary melanoma. The incidence of second primary melanoma was calculated using a competing risk analysis accounting for death as a competing risk. Incidence over time was calculated from the date of diagnosis of the first melanoma to the date of diagnosis of the second melanoma, death, or last follow-up. Results: Of the 788 melanoma patients, 61 (7.7%) had 2 or more primary melanomas, of which 44 (72%) had 2 primary melanomas. The incidence of developing a second primary melanoma one and five years after the initial melanoma diagnosis is 4.1% and 8.7%, respectively. The thickness of the first primary melanoma was significantly higher (p<0.001) than the thickness of the second primary melanoma, even after excluding the 19 patients with melanoma-in-situ as their second melanoma (p=0.02). The thickness of the second primary melanoma was similar (p=0.47) to the thickness of the third primary melanoma. The absence or presence of mitosis was not significantly different in melanomas from SPM versus MPM patients (p=0.61). Conclusions: Mitotic rate is the same in tumors from SPM and MPM patients which suggests that the tumors are biologically similar. Differences in tumor thickness between SPM and MPM patients are more likely due to factors other than tumor biology such as increased surveillance.

Commercial Support: None identified
P1902: A case of common blue nevus of the upper lip

Kim, Kim, Yoon

Presentation Time: Friday, August 5, 2011 from 8:40:00 AM to 8:45:00 AM

Introduction The blue nevus presents as demarcated cerulean-blue or bluish black colored papules or plaques collected aberrant dermal melanocytes in the reticular dermis. They are classified into three categories as common blue nevus, cellular blue nevus and compound blue nevus. The common blue nevus typically located on the dorsal surface of the hands and feet or in the head and neck lesion. Though, it is rarely found in the oral cavity. Case report A 27-year-old woman was visited our clinics with bluish black colored papules on the upper lip for several years. She has no subjective symptoms such as itching and pain. But she feels cosmetically discomfort. We performed excisional skin biopsy. Histopathologic finding shows proliferative melanocytes in dermis. So we diagnosed as common blue nevus and are observing closely until now without any complication. Conclusion We report a case of common blue nevus in a 26-year-old woman, who had 0.4 mm sized bluish black colored papules on the upper lip for several years. Malignant blue nevus of lip have been reported. A clinician should perform a dermoscopy or skin biopsy to distinguish benign lesions from malignant lesions, if the bluish skin lesion appears as hemangioma or hematoma.

Commercial Support: None identified
NON-MELANOMA SKIN CANCER - Friday, August 5, from 8:50AM to 9:15AM

P2000: Low frequency of EGFR mutations but high frequency of EGFR copy number anomalies in cutaneous squamous cell carcinoma

Uribe, Gonzalez

Presentation Time: Friday, August 5, 2011 from 8:50:00 AM to 8:55:00 AM

Introduction Cutaneous squamous cell carcinoma (SCC) ranks second in frequency of all skin tumors and in 1-12% of the cases can cause metastases. Recently, frequent mutations in the epidermal growth factor receptor (EGFR) have been detected in lung cancer, mainly deletions in exon 19 and L858R mutation in exon 21. They are located at the EGFR tyrosine kinase domain (TK). These mutations are correlated with clinical response of patients to tyrosine kinase inhibitors (Gefinitib and Erlotinib), because the tumor cells are addicted to the constant activation of specific signaling pathways. There are reports of the use of this kind of drugs (ie. Cetuximab) in advanced SCC with hopeful outcomes. Many observations show that there are abnormalities in the expression of epidermal growth factor receptor (EGFR) and/or its ligands in HNSCC. While in other tumors EGFR mutations are frequent genetic events, there is scarce information whether EGFR is mutated or amplified in SCC and what would be its pathogenic role in this malignancy. Methods We studied EGFR mutations in exons 19 and 21, from FFPE tissues, from 94 SCC, using tissue microdissection, PCR amplification and automatic sequencing. We evaluated EGFR expression using immunohistochemistry and EGFR copy number by FISH. Results EGFR mutation was detected in 1/94 cases, in exon 19 (Del747-A750InsP). EGFR was overexpressed in 67/90 (74%) cases. EGFR copy number was evaluated by FISH in 90 cases, detecting 9/90 (10%) of EGFR (+) (high polisomy or amplification), but we detected a high frequency of EGFR copy number aberrations (trisomy, polysomy or amplification) in 46/90 (51%) of cases. SCC FISH (+) cases have a lower degree of cell differentiation than EGFR (-). There is a positive correlation between EGFR copy number anomalies and EGFR expression. Conclusions There is a low frequency of EGFR mutations in SCC, but they overexpress EGFR and SCC have frequent EGFR copy number anomalies. EGFR mutation must be a predictor of good response of EGFR using anti EGFR therapy, only in a few patients (EGFR mutated). EGFR copy number could be a predictor of response of targeted therapy anti EGFR in SCC. It is important to know whether EGFR is mutated or amplified in SCC skin and their precursors for the development of future treatment protocols in this pathology and the study of new routes in the administration of anti EGFR therapy Financed by Grant Fondecyt de Iniciacion 11080125

Commercial Support: None identified
Practice trends in the treatment of actinic keratosis in the United States: 0.5% fluorouracil and combination cryotherapy plus fluorouracil are underutilized despite evidence of benefit

Hagele, Levender, Davis, Feldman

Presentation Time: Friday, August 5, 2011 from 9:00:00 AM to 9:05:00 AM

Background: Topical fluorouracil and cryotherapy are among the most commonly used treatments for actinic keratosis. Evidence shows 0.5% fluorouracil has similar efficacy and is better tolerated than 5% fluorouracil. Evidence also shows combination therapy with cryosurgery and fluorouracil is beneficial.

Objective: To examine fluorouracil and cryotherapy use in the treatment of actinic keratosis.

Methods: The National Ambulatory Medical Care Survey database was queried for visits for actinic keratosis. Visits were analyzed for patient demographics, provider specialty, and treatment regimens. Fluorouracil and cryotherapy use was analyzed over time.

Results: Cryotherapy was the most commonly used treatment for actinic keratosis. Fluorouracil products were prescribed to 1.1 million patients (6.6%) between 2001 and 2008; of these, dermatologists prescribed 0.5% fluorouracil in 51.8% of cases and 5% fluorouracil in 38.9% of cases. Combination fluorouracil and cryotherapy was utilized for only 1.1% of AK visits between 1993 and 2008 and was never utilized by non-dermatologists.

Conclusions: Despite evidence suggesting comparable efficacy, greater tolerability, and lower cost of 0.5% fluorouracil relative to 5% fluorouracil, 5% fluorouracil is used by dermatologists almost as often as 0.5% fluorouracil. Among non-dermatologists, 5% fluorouracil is used exclusively. Combination therapy of fluorouracil and cryotherapy is underutilized despite evidence of its benefit.

Commercial Support: Sanofi-Aventis
A recurred case of malignant eccrine poroma on the ear

Kim, Yoo, Kim, Park, Kil

Presentation Time: Friday, August 5, 2011 from 9:10:00 AM to 9:15:00 AM

Malignant eccrine poroma (Eccrine porocarcinoma) is a rare, locally-aggressive, potentially fatal malignant cutaneous tumor that arises from the intraepithelial ductal portion of the eccrine sweat gland. It can develop either spontaneously or from a long standing benign eccrine poroma. Eccrine porocarcinoma is a tumor that most commonly present in elderly people aged over 60 years. Approximately 250 cases of eccrine porocarcinoma have been reported since this disease was first described in 1963. Lower extremities are most commonly affected parts of the body. However, only three cases occurring specifically on the ear have been documented in the literature to date. A 46-year-old Korean woman had a past history of complete wide excision and local skin flap surgery of malignant eccrine poroma on the tragus of the right ear 10 years ago. Recently, erythematous scaly plaque was developed on the same site of previous tumor on the right ear. Punch biopsy was done. Histopathological findings confirm intradermal tumor cell nests composed of small basaloid cells and duct-like structures. Each cell has a large, hyperchromatic atypical nucleus. Immunohistochemical stains were revealed PAS(+), d-PAS(±), CEA(+), EMA(±) and S-100(-). Based on the rarity of eccrine porocarcinoma of the ear, we report a recurred case of malignant eccrine poroma on the ear after 10 years.

Commercial Support: None identified
Background: Subcutaneous fat necrosis of the newborn is an uncommon condition occurring in full-term infants characterized by erythematous to violaceous, hard, indurated nodules and plaques occurring on the trunk, arms, buttocks, thighs, or cheeks within the first few days or weeks of life. The condition generally runs a benign course but can be associated with morbidity and mortality from hypercalcemia.

Observation: The Dermatology service was consulted to see a full-term 26 day-old female with indurated plaques on the upper back. She had a history of traumatic birth which included meconium aspiration and asphyxia, and was treated with a cooling blanket to maintain a temperature of 33 degrees Celsius for 72 hours to protect her central nervous system. Physical examination was significant for erythematous to violaceous subcutaneous nodules and plaques of the right buccal cheek, lateral upper arms, upper back, and posterior axillae. Punch biopsy from the back showed panniculitis and fat necrosis with many of the fat cells containing radially arranged needle shaped crystals, consistent with subcutaneous fat necrosis of the newborn. Complete blood counts, comprehensive metabolic panels, and calcium levels were within normal limits throughout the hospital course. At two-week follow-up, the induration of the skin was more extensive compared to the original examination but subsequently showed gradual improvement and her laboratory values remained unremarkable. At last follow-up with dermatology at 4 months of age, her skin was markedly improved with softening of her skin and calcium levels remain normal. Comment: The exact pathogenesis of subcutaneous fat necrosis of the newborn is unknown. As in our patient, it has been associated with cold or stress-induced trauma such as hypothermia, meconium aspiration, or asphyxia. Our case highlights the importance of being aware of this rare entity as increased use of therapeutic cooling in traumatic births may increase the risk of subcutaneous fat necrosis of the newborn.

Commercial Support: None identified
Background: Previous studies have noted that differences in tolerance for UVB radiation between different anatomical regions in non-psoriatic skin. For example, the legs can tolerate significantly greater UVB irradiation than the trunk.[1] Whether such anatomical differences exist in psoriatic plaques has never been clarified. Since laser therapy targets only psoriatic rather than uninvolved skin, the optimal dosimetry for phototherapy of psoriasis at each anatomical area can now be easily determined.

Purpose: To ascertain if dosimetry for optimal phototherapy should be differentiated between different anatomical areas.

Methods: This was a 9-month pilot trial. 13 patients with psoriasis involving 10 to 30% body surface area were recruited. Patients received the 308nm UVB excimer laser twice a week for 12 weeks. Initial UVB dosage was determined by Fitzpatrick skin type and plaque induration. Subsequent UVB dose was determined by clinical observation of erythema response and plaque improvement. The optimal UVB dosages in each anatomical region were compared and analyzed. Results: 7 out of 12 (54%) patients who completed the 12-week laser treatment achieved PASI 75. Of these 7 patients, 4 turned out to have different optimal dosimetry depending on the anatomical region. Optimal dosages for the lower extremities as compared to the trunk in each of these 4 patients were the following: 4500 vs. 788mJ, 1892 vs. 1316mJ, 1198 vs. 739mJ, and 2031 vs. 919mJ, respectively. Conclusion: For a significant proportion of patients with generalized psoriasis, plaques on the lower extremities could not only tolerate, but in fact appeared to require markedly higher dosage of UVB exposure as compared to plaques on the trunk. Therefore, it may be critical for clinicians to be aware of the possibility that optimal phototherapy may involve differentiated dosimetry based on differences in tolerance and requirement of various parts of the body. Even though this phenomenon might be commonly recognized by clinicians, to the best of our knowledge, this is the first time that this phenomenon has been articulated and substantiated with objective data. 1. Waterston K, Naysmith L, Rees JL. Physiological variation in the erythema response to ultraviolet radiation and photoadaptation. J Invest Dermatol. 2004;123(5):958-64.

Commercial Support: Supported by PhotoMedex Inc
**P2201: An analysis of chronic actinic dermatitis over a period of 25 years**

Que, Cohen, Brauer, Soter

**Presentation Time: Friday, August 5, 2011 from 9:40:00 AM to 9:45:00 AM**

Background: Chronic actinic dermatitis (CAD) is a photosensitivity disorder defined by a persistent eczematous reaction of three months or more in sun-exposed areas; abnormally low phototest results; and a dermal infiltrate composed of lymphocytes and macrophages. In a previously conducted study from 1985 to 1993, the majority of CAD patients were men over 50 years of age and predominantly of skin types V and VI. Objective: Through retrospective analysis of patients from 1993 to 2009, we sought to explore changes in the demographic representation and patterns of patch and photopatch test results in patients with CAD. Methods: Patients diagnosed with CAD were identified by searching medical records of patients who underwent phototesting from 1993 to 2009. The age, gender, skin type, phototest, patch and photopatch test results, and medications were recorded. Phototesting to UVA, UVB, and visible light allowed for the quantification of a minimal erythema dose, the lowest dose of UV producing a clinically identifiable erythema in an irradiated area. Photopatch testing involved the placement of photoallergen series on the right and left sides of the patient’s back, with subsequent removal of the series on one side and irradiation of both sides. After removal of the non-irradiated series, a final photopatch reading was performed. Patch tests involved the placement of a panel of allergens on the back, without irradiation. Allergic reactions to photopatch and patch tests were interpreted by the NACDG scoring system. Results: Forty patients had a mean age of 57.8 years, and 27 (67.5 %) were men. Twelve (30%) patients were skin types I and II, and 17(42.5%) were skin types V and VI. Nine (22%) patients were younger than 50 years and 4 (44.4%) were men. One of the nine patients (11.1%) was skin type I, and 4 (44.4%) were skin types V and VI. The two most commonly positive agents eliciting patch tests were carba mix and paraphenylenediamine. The two most commonly positive agents eliciting photopatch tests were sunscreens and plant derivatives. Conclusions: Our findings suggest a trend of two new classes of North American patients at our institution being diagnosed with CAD – younger women skin types IV to VI and older men skin types I to III. We observed a greater than expected number of positive patch test results to paraphenylenediamine. Furthermore, we suggest that patch and photopatch testing may be useful adjuncts in the management of CAD.

Commercial Support: None identified
Introduction: Melasma can be associated with significant psychosocial sequelae and is often undertreated even though effective treatment can improve patients’ quality of life. A study has been performed to evaluate the efficacy and tolerability of using a hydroquinone skin care system plus tretinoin 0.025% cream to treat melasma. Methods: Female patients with mild or moderate epidermal melasma, cutaneous melanosis that had been stable for ≥3 months, and Fitzpatrick skin type III-VI were instructed to use the hydroquinone system plus 0.025% tretinoin cream for 12 weeks. The hydroquinone system involved applying the following proprietary products: foaming gel cleanser (twice daily), toner (twice daily), 4% hydroquinone (twice daily), exfoliant (each morning), and sunscreen (each morning). Tretinoin was applied each evening. Results: A total of 20 patients enrolled in the study and 100% completed. Treatment was associated with significant reductions from baseline in melasma severity (P≤.01 from week 4 onward), melasma pigmentation intensity (P≤.001 from week 4 onward), and melasma area and severity index (P≤.001 from week 4 onward). Between baseline and week 12, the proportion of patients whose melasma was at least moderate in severity declined from 70% to 35%, and the proportion of patients whose melasma pigmentation intensity was at least moderate in severity declined from 80% to 30%. Quality of life was improved — the proportion of patients feeling embarrassed or self-conscious about their skin “a lot” or “very much” declined from 80% to 20% between baseline and week 12. Similarly, the proportion who put “a lot” or “very much” effort into hiding their skin discoloration declined from 90% to 37%. At least 85% of patients were “satisfied” or “very satisfied” with the overall effectiveness of their treatment at all post-baseline timepoints. The mean grades for erythema, dryness, peeling, and burning/stinging were between “none” and “trace” at all timepoints. Three patients had adverse events probably related to treatment (erythema/dryness, dryness/peeling, and erythema/stinging sensation). Conclusion: Using the hydroquinone skin care system plus 0.025% tretinoin cream can reduce the severity of melasma and the intensity of melasma pigmentation, and improve patients’ quality of life. Furthermore, the treatment is well tolerated and associated with a high level of patient satisfaction.

Commercial Support: Supported by OMP, Inc.
Background: The effect of etanercept on health-related quality of life (HRQoL) was examined in this Phase IV trial for patients (pts) with moderate to severe plaque psoriasis and scalp involvement. Methods: Pts with PASI ≥10, affected BSA ≥10%, and Psoriasis Scalp Severity Index ≥15 were randomized to Group (Grp) A (12 weeks [wks] of etanercept 50 mg twice weekly [BIW] followed by 12 wks of etanercept 50 mg weekly [QW] and placebo QW), or Grp B (12 wks of placebo BIW followed by 12 wks of etanercept 50 mg BIW). HRQoL was evaluated with the Dermatology Life Quality Index (DLQI), composed of 6 subscales. Lower scores indicate better HRQoL. Results: Baseline mean (SE) total DLQI score was 15.5(0.9) vs 15.4(0.9) for Grp A and B, respectively, and fell to 4.3(0.7) vs 11.8(1.0) at week 12 (P<0.0001), with mean percent improvement (SE) of 71.3%(4.6) vs 20.4%(5.5) for Grp A and B, respectively. Baseline mean (SE) Symptoms/Feelings subscale score was 4.7(0.2) vs 4.6(0.2) for Grp A and B, respectively, and fell to 1.5(0.1) vs 3.7(0.2) at week 12 (P<0.0001), with mean percent improvement (SE) of 64.3%(5.5) vs 17.2%(4.4) for Grp A and B, respectively. Baseline mean (SE) Daily Activities score was 3.6(0.2) vs 3.5(0.2) for Grp A and B, respectively, and fell to 1.0(0.2) vs 2.7(0.3) at week 12 (P<0.0001), with mean percent improvement (SE) of 69.6%(4.9) vs 12.9%(7.9) for Grp A and B, respectively. Baseline mean (SE) Leisure score was 2.9(0.3) vs 2.7(0.3) for Grp A and B, respectively, and fell to 0.7(0.2) vs 2.2(0.3) at week 12 (P<0.0001), with mean percent improvement (SE) of 68.0%(5.6) vs 9.7%(19.4) for Grp A and B, respectively. Baseline mean (SE) Work/School score was 1.2(0.1) vs 1.3(0.1) for Grp A and B, respectively, and fell to 0.3(0.1) vs 0.8(0.1) at week 12 (P=0.0003), with mean percent improvement (SE) of 51.1%(7.9) vs 20.6%(9.9) for Grp A and B, respectively. Baseline mean (SE) Personal Relationships score was 2.3(0.3) vs 2.0(0.3) for Grp A and Grp B, respectively, and fell to 0.5(0.2) vs 1.4(0.2) at week 12 (P=0.0003), with mean percent improvement (SE) of 61.1%(6.9) vs 18.8%(9.3) for Grp A and B, respectively. Baseline mean (SE) Treatment Satisfaction score was 0.9(0.2) vs 1.3(0.2) for Grp A and B, respectively, and fell to 0.3(0.1) vs 0.8(0.1) at week 12 (P=0.0038), with mean percent improvement (SE) of 25.4%(9.3) vs 17.0%(8.6) for Grp A and B, respectively. Conclusion: HRQoL showed significant improvement with etanercept therapy across all DLQI subscales.

Commercial Support: Research funded by Immunex Corporation, a wholly owned subsidiary of Amgen Inc.
Objective: Ustekinumab (UST), a novel IL-12/23p40 monoclonal antibody, has demonstrated significant efficacy and a favorable safety profile for the treatment of moderate-to-severe psoriasis in clinical trials. Our objective was to evaluate the benefit-risk profile of UST by applying established benefit-risk methodologies. Methods: Using combined data from the 12-wk placebo-controlled periods of 2 UST pivotal Phase 3 trials, a risk-difference was calculated to indicate effect sizes for several efficacy and safety endpoints. Number needed to treat (NNT) and number needed to harm (NNH) estimates were calculated for each endpoint to show the number of pts who need to be treated with UST to observe an additional ‘success’ (NNT) or adverse event (NNH) than would be observed for the same number of pts treated with placebo. Results: Risk-differences for the PASI and PGA efficacy endpoints were high, resulting in low NNT values (eg. few pts need to be treated with UST (45- or 90mg) to achieve one additional treatment success). Risk-differences for safety endpoints were small, with confidence intervals (CIs) that included zero. Corresponding NNH values were high (at least two orders of magnitude more than NNT estimates), indicating many pts would need to be treated to experience one additional serious adverse event (SAE). For example, in pts treated with UST 90mg versus placebo, the NNT for achieving 75% reduction in PASI score (PASI75) was 1.46 (95% CI 1.38 to 1.54), while NNH for experiencing any SAE was 177 (95% CI -∞ to -120.9, 51.1 to ∞). Risk-differences comparing UST 45mg and 90mg favored the 90mg dose for all efficacy measures (PASI50 and PASI75 95% CIs did not include zero). The risk-differences for all safety measures were near zero (95% CIs included zero). A subgroup-analysis showed that in pts weighing >100kg, UST 90mg demonstrated higher efficacy for all studied response measures relative to pts weighing ≤100kg. Conclusion: During the 12-wk placebo-controlled period of two Phase III UST clinical trials, the calculated NNT for PASI75 was low (<1.6 for both UST 45mg and 90mg) while NNH for all studied adverse events was at least two orders of magnitude higher. Thus, pts treated with UST have a higher likelihood of treatment success than experiencing a serious safety event. The risk difference and NNT-NNH values reported in this analysis are comparable with reported results for other biologics, and suggest a favorable benefit-risk profile for UST.

Commercial Support: Centocor Ortho Biotech Services, LLC
**P2402**: Response to retreatment with ustekinumab after withdrawal from therapy in moderate-to-severe psoriasis patients: Results from the PHOENIX 1 and ACCEPT phase 3 clinical trials

Gordon, Griffiths, Papp, Yeilding

**Presentation Time: Friday, August 5, 2011 from 10:20:00 AM to 10:25:00 AM**

Purpose: Since pts treated for moderate-to-severe psoriasis with a biologic agent may temporarily interrupt therapy for a variety of reasons, the safety and efficacy of retreatment are important clinical issues. We evaluated the response to retreatment among pts who initially responded to ustekinumab (UST) therapy and were subsequently withdrawn using data from 2 Phase 3 trials.

Methods: Response to retreatment after 2 loading doses 4 wks apart was evaluated in pts who responded to UST and subsequently interrupted treatment in the PHOENIX1 and ACCEPT clinical trials. In PHOENIX1, 320 pts with at least 75% improvement in their baseline PASI score (PASI75 response) at wks28 and 40 were withdrawn from therapy at wk40, and were eligible for retreatment after losing at least 50% of the improvement gained while on treatment. In ACCEPT, 494 UST-treated wk12 responders (PGA score=<2) were withdrawn from therapy and were eligible for retreatment after their PGA score regressed to >2. Results: Baseline characteristics of responders withdrawn from UST therapy and subsequently retreated were generally comparable with those of the overall trial populations. In PHOENIX1, among wk40 PASI75 responders withdrawn from therapy, 95.0%(134/141) and 91.1%(163/179) of pts in the 45mg and 90mg groups, respectively, were retreated; 12wks after retreatment, 83.7%(103/123) and 85.4%(117/134) achieved PASI 75 response. In ACCEPT, among wk12 PGA responders withdrawn from therapy, 83.2%(149/179) and 75.2%(237/315) of pts in the 45mg and 90mg grps, respectively, were retreated; 79.6%(121/152) and 86.3%(207/240) of pts in the UST 45mg and 90mg grps, respectively, regained a PGA score 0/1/2 12wks after the initial retreatment dose. In PHOENIX1, among pts who were retreated with UST, 44.4% had >=1AE within 12wks of starting treatment vs 39.1% within the 12wk period after retreatment; serious AEs(SAEs) occurred in 1.0% of retreated pts in each phase. Infections occurred in 22.6% and 19.2% of retreated pts in each phase, respectively. In ACCEPT, 68.7% and 46.9% of UST-retreated pts had >=1 AE, 1.0% and 1.8% reported a SAE, and 28.3% and 24.3% reported an infection within 12wks of starting treatment and within the 12wk period after retreatment, respectively. Conclusion: High proportions of pts withdrawn from UST treatment recaptured clinical response after retreatment with UST. Rates of AEs, SAEs and infections in the periods after initiating treatment and after retreatment were generally comparable.

Commercial Support: Centocor R&D, Inc
Consistency of responses across different ethnic populations with moderate-to-severe psoriasis: Results from the ustekinumab psoriasis clinical development program

Tsai, Reich, Song, Ho

Presentation Time: Friday, August 5, 2011 from 10:30:00 AM to 10:35:00 AM

Objective: To evaluate responses to ustekinumab (UST) in Asian and non-Asian moderate-to-severe psoriasis populations. Methods: Efficacy and safety of UST through Wk28 were analyzed in trials of North American-European (PHOENIX 1[n=766] and 2[n=1230]), Japanese [n=157], and Korean-Taiwanese [n=121] populations. Patients received subcutaneous UST45mg, UST90mg, or PBO at Wks 0&4; UST90mg was not evaluated in the Korean-Taiwanese trial. UST patients received a third dose at Wk16; PBO-treated patients crossed-over to receive UST at Wks12&16. Results: At baseline, Asian patients generally weighed less (72kg vs. 90kg), had lower BMI (48.8% vs. 81.0% with BMI >25), had more extensive disease (35.0% vs. 20.0% BSA), had slightly higher PASI (20.7 vs. 17.5) but lower PGA scores (29.8% vs 41.5% with PGA > 4) compared to non-Asian patients, respectively. At Wk12, PASI75(PGA 0/1) was achieved in 66.9% (64.5%), 72.1% (68.4%), and 3.5% (4.2%) of UST45mg, UST90mg and PBO-treated non-Asian patients; 59.4% (57.8%), 67.7% (69.4%) and 6.5% (9.7%) of UST45mg, UST90mg, and PBO-treated Japanese patients; and 67.2% (70.5%) and 5.0% (8.3%) of UST45mg and PBO-treated Korean-Taiwanese patients, respectively. Each measure improved through Wk28; similar responses were observed in PBO-treated patients after cross-over to UST-treatment. Through Wk12, adverse event and serious AE (AE[SAE]) rates among UST45mg, UST90mg, and PBO patients were 54.8%(1.5%), 49.7%(1.4%), 49.2%(1.5%) in PHOENIX 1&2; 65.6%(0%), 59.7%(4.8%), 65.6%(6.3%) in the Japanese trial; and 65.6%(0%) and 70.0%(3.3%) for UST45mg and PBO-treated Korean-Taiwanese patients, respectively. Safety results through Wk28 were similar. Conclusions: UST demonstrated consistent efficacy and safety profiles in Asian and non-Asian moderate-to-severe psoriasis patients through Wk28.

Commercial Support: 100% is sponsored by Centocor Research & Development, Inc.
**P2404**: Efficacy and safety of methotrexate in 2 fixed doses of 10mg or 25mg orally once weekly in patients with severe plaque type psoriasis: A prospective, randomized, double blind, dose ranging study

Krishna

**Presentation Time: Friday, August 5, 2011 from 10:40:00 AM to 10:45:00 AM**

There is a lack of consensus on the optimum dose of methotrexate in psoriasis due to absence of randomized controlled trials. In our study, sixty patients of severe chronic plaque psoriasis were randomly assigned to 2 groups; 30 to methotrexate 10 mg per week and 30 to methotrexate 25 mg per week. All patients received oral methotrexate once weekly. Fifty one (85%) patients completed the study period of 12 weeks. Patients in methotrexate 25 mg per week group had a statistically significant greater clinical improvement in terms of attainment of psoriasis area severity index 75, 90 and 100. Adverse events were seen in 43.1% of the patients and were mild except in 3 patients where methotrexate had to be stopped. Therefore, methotrexate would continue to remain the gold standard drug for treatment of severe psoriasis until a new safer, more efficacious drug with a reasonable cost benefit ratio is developed.

**Commercial Support**: None identified
**P2405**: psoriasis and palmoplantar pustulosis attributable to tumor necrosis factor alpha inhibitors: The Mayo Clinic experience, 1998-2010

Shmidt, Wetter, Pittelkow, Ferguson

**Presentation Time: Friday, August 5, 2011 from 10:50:00 AM to 10:55:00 AM**

Background: Tumor necrosis factor (TNF-alpha) antagonists have been reported to induce de novo or worsening psoriasis. Objective: To retrospectively examine the clinical characteristics and outcomes of patients with psoriasis attributable to anti–TNF-alpha therapy. Methods: We performed a retrospective review of patients with new-onset or worsening psoriasis during TNF-alpha inhibitor therapy between 1998 and 2010. Results: Of the 56 patients (mean age at psoriasis onset, 48.1 years), 41 (73%) were female. Twenty-two patients (39%) had Crohn’s disease and 14 (25%) had rheumatoid arthritis. Thirty patients (54%) were treated with infliximab, 19 (34%) with adalimumab, and 7 (12%) with etanercept. New-onset or worsening psoriasis occurred after a mean treatment duration of 17.1 months. Plaque psoriasis (n=27), palmoplantar pustulosis (n=25), scalp psoriasis (n=12), generalized pustular psoriasis (n=7), erythrodermic psoriasis (n=2), and inverse psoriasis (n=2) were the cutaneous adverse effects. Among the 39 patients for whom full treatment response data were available, 33 (85%) had a complete or partial response; combined response rates (complete and partial) were slightly higher among those who discontinued anti–TNF-alpha therapy (16 of 17 patients [94%]) than among those who continued anti–TNF-alpha therapy (17 of 22 patients [77%]). Limitations: Retrospective nature, possible referral bias, and lack of complete follow-up for some patients. Conclusion: Although some patients sufficiently controlled their psoriasis while continuing anti–TNF-alpha therapy, those who discontinued therapy achieved higher rates of complete response. Further studies should explore the efficacy and safety of switching to an alternative anti–TNF-alpha agent.

Commercial Support: None identified
**P2406: Efficacy and feasibility of combination excimer laser therapy, clobetasol spray, and calcitriol ointment in the treatment of generalized plaque psoriasis**

Heller, Lee, Koo, Park, Bhutani

**Presentation Time: Friday, August 5, 2011 from 11:00:00 AM to 11:05:00 AM**

Purpose: To ascertain if a combination of the most powerful excimer laser, clobetasol spray, and calcitriol ointment is an effective and efficient treatment for generalized psoriasis. Methods: This is a 12-week, on-going open-label, pilot trial evaluating the efficacy and safety of the combination of excimer laser therapy with clobetasol spray as the initial treatment of generalized psoriasis, followed by maintenance therapy with calcitriol ointment. All patients will receive excimer laser treatments twice weekly for the first 6 weeks. For the remaining 6 weeks, only patients who are less than or are concerned for falling below PASI 75 will continue twice weekly excimer laser treatments. In regards to topical therapies, the study will be conducted in three distinct periods (A, B, and C), each of 4 weeks duration. During Period A (weeks 1-4), patients will use clobetasol spray twice daily. During Period B (weeks 5-8), patients will use calcitriol ointment twice daily. During Period C (weeks 9-12), patients will use clobetasol spray twice daily and calcitriol ointment twice daily. Results: Nine patients have been recruited so far. 6 out of 7 (86%) patients who completed the first 6 weeks achieved PASI 75. 4 out of 4 (100%) patients who completed all 12 weeks achieved PASI 75. More data will be available in the poster. Conclusion: Preliminary data is promising. This proposed combination regimen for the treatment of generalized psoriasis has thus far demonstrated both outstanding efficacy and fast onset of action. Clobetasol spray may be an ideal partner to excimer laser therapy enhancing its efficacy and minimizing risk of phototoxic reaction from aggressive UVB irradiation involving dosimetry many times above the MED. Calcitriol ointment provides the required steroid holiday to prevent adrenal suppression. Although this approach may not be feasible for patients with generalized pustular, erythrodermic, or guttate psoriasis, it may be feasible for a significant proportion of patients with generalized psoriasis with <20% BSA and reasonably confluent plaque configuration. Thus, an external approach with better efficacy than current treatment options and without any serious systemic risks may be within reach.

Commercial Support: Supported by PhotoMedex Inc
Objective: Prior qualitative research has explored patient experience and overall expectations with psoriasis (PsO) disease. There is limited research exploring expectations of treatment, with a comparison to actual treatment experiences. This analysis aimed to comparatively describe treatment expectations prior to and experiences after initiating PsO medication. Methods: Cross-sectional data from PsO patients in the United States were collected through self-administered, web-based questionnaires from March–April 2010. Study participants were aged ≥18 yrs with a self-reported physician diagnosis of PsO. Current treatment type [biologics (BIO), prescription oral (Rx/Oral), phototherapy (PT), prescription topical (Rx/Topical), over-the-counter (OTC), and untreated with prior medication use (UT)] and self-reported disease severity (mild, moderate, severe) were reported. Percentages of patients with treatment expectations and experiences were compared for the following concepts: symptom alleviation, consistent symptom control, drug rapidity, health-related quality of life (QOL) improvement, long-term cost-effectiveness, and emotional health improvement. Results: A total of 759 patients (mild=54%, moderate= 40%, severe= 6%) participated (BIO=109, Rx/Oral=44, PT=20, Rx/Topical=396, OTC=178, UT=12). The two most frequently reported expectations were symptom alleviation (67%, 67%, 63%) and consistent symptom control (50%, 51%, 52%) for mild, moderate, and severe patients, respectively. Fewer moderate and severe patients reported having current treatment meet those expectations compared to mild (51%, 37%, 60%, respectively). Significantly greater proportions of moderate and severe patients expected improvement in QOL (40%, 50%) and emotional health (22%, 30%), respectively, compared to mild patients (21%, 9%; p<0.05). Less than 60% of moderate and severe patients with those expectations had them met. Expectations varied by current treatment type. The BIO group was the only group with ≥97% of patients reporting an experience consistent with expectations in each concept. Conclusions: PsO patients expected symptom alleviation and consistent control from existing treatment options. Moderate and severe patients also expected emotional health and quality of life improvements. Among various treatment types, biologic users had expectations met to a greater degree. There is an opportunity for clinicians to consider patient expectations in treatment decision-making.

Commercial Support: 100% Centocor Ortho Biotech Services, LLC
P2408: Patient characteristics of ustekinumab utilization in a specialty pharmacy provider (SPP) setting
Mueller, Ryan, Gunnarsson, Martin

Presentation Time: Friday, August 5, 2011 from 11:20:00 AM to 11:25:00 AM

Objective: Ustekinumab (UST) is indicated for the treatment of patients with moderate to severe plaque psoriasis by a subcutaneous injection at weeks 0 and 4 followed by every 12 weeks. Specialty pharmacy providers (SPP) may be involved in the management of patients treated with UST. SPPs facilitate drug delivery and use to achieve greater clinical, economic and humanistic outcomes through a patient management model. The study objective was to evaluate the administration of UST in an SPP setting and describe patient characteristics.

Methods: A retrospective analysis was conducted on a dataset of patients treated with UST recorded by Diplomat Specialty Pharmacy. Patient inclusion criteria were: ≥18 years of age and ≥1 dose of UST from 10/2009-09/2010. Demographics, % body surface area of psoriasis involvement (BSA), treatment history, UST delivery date and destination were reported. The National Psoriasis Foundation (NPF) has used BSA to define disease severity: mild for BSA <3%, moderate for BSA 3-10%, and severe for BSA >10%. Descriptive statistics were run using SAS® 9.2.

Results: A total of 1008 patients received at least one dose of UST. The population was 52% male and had a mean age of 50.0 years (range of 18-93). The patient distribution of reported BSA was as follows: 58.7% >10%, 20.7% between 3% and 10%, 1.2% ≤3%, and 19.5% missing. A majority (78.3%) reported prior use of biologic therapy; specifically 43.8% had used ≥2 biologic therapies. UST was shipped to the physician’s office for 83.2% of patients, to the home for 13.2% of patients, and other for 3.6%. Of those patients that had at least 2 doses, 65% received their second UST dose within 7 days of the recommended 4 weeks. Conclusions: This is the first reporting of characteristics of patients undergoing treatment with UST in an SPP environment. A large majority of patients had prior biologic experience, and almost all had moderate to severe psoriasis, per NPF definitions. Severity assessment based on BSA in this study is limited because unreported disease characteristics (eg functional impairment, lesion characteristics or location) could further influence severity, and it is not known if patients were on active treatment at the time of assessment. Sixty-five percent of patients received the second dose of UST within a seven day interval around the expected 4 week timepoint. Further analysis is warranted to assess the long-term impact of SPP management of UST patients.

Commercial Support: 100% Centocor Ortho Biotech Services, LLC
The role of the tumor suppressor and negative regulator of Wnt signaling, APC, in the skin and epidermal appendages is poorly understood. The development of a mouse model, the APC conditional KO (cKO), circumvents homozygotic lethality by the localization of Cre recombinase to remove the floxed APC allele via linkage with a tissue specific promoter, Keratin 14. cKO embryos displayed a distinct phenotype beginning at E15.5, characterized by silvery plaques covering the skin. Embryos exhibited fused digits and open eyelids, indicative of aberrations in epidermal development. Although epidermal differentiation occurred in APC cKO animals, the architecture of the epidermis was highly irregular. The epidermis showed an expansion of basal-like cells and precocious presence of a stratum corneum-like structure. However, a dye exclusion assay revealed an impaired epidermal barrier at E17.5 when compared with control littermates, indicating that the stratum corneum was not functional. Hair follicle (HF) morphogenesis was significantly impaired in the cKO. HF placodes or pegs were not visible in sagittal sections of E15.5-E17.5 backskins, and immunofluorescence staining for early HF markers was absent in the cKO embryos. Moreover, backskin from E17.5 cKO embryos failed to generate HFs when grafted onto Nude mice, in comparison to WT littermates. Interestingly, the dermis underlying the cKO epidermis was diffusely positive for dermal papillae (DP) marker alkaline phosphatase, suggesting that the early mesenchymal-epithelial crosstalk important for initiating the dermal condensate and form the epidermal placode was compromised. Taken together, loss of APC in the epidermis in vivo results in impaired epidermal differentiation as well as impaired HF morphogenesis; however, the entire epidermis does not adopt a HF fate as seen in constitutively active β-catenin embryonic mutants, suggesting that APC may have a role in epidermal development that is independent of its role as a negative regulator of Wnt signaling and β-catenin stabilization.
P2501: Central sensitisation: An under-reported cause of chronic pain in vascular malformations
Cunningham, Hackett, Hearty, Watson

Presentation Time: Friday, August 5, 2011 from 11:40:00 AM to 11:45:00 AM

Clinical Description A 25 year old female presented with chronic right flank pain overlying a combined capillary/venous/lymphatic malformation. She developed cellulitis in the region of her malformation at ages 4 and 16. In the post-pubertal period, pain was initially intermittent and became more persistent after her second episode of cellulitis. The patient’s family reported associated increased irritability, mood and sleep disturbance in this previously well-adjusted young woman. Investigations MRI showed a large vascular malformation (VM) (posterior chest wall bilaterally/right abdominal wall/right flank) with no pelvic extension. There were superficial (no deep) venous thromboses within the malformation on MRI/Doppler ultrasound. It was deemed unsuitable for radiological intervention. Thrombophilia screen was normal except for stable elevation in D-dimer levels. Pain Management Aspirin treatment for micro-thromboses (patient declined subcutaneous heparin) followed by a trial of Ibuprofen and escalating doses of opioids and Doxepin, failed to control pain. Subsequently she underwent a single, right paravertebral field block with levobupivocaine/dexamethasone which inhibited dorsal horn (DH) sensory input. Pain resolution was rapid and sustained, with associated marked elevation in mood and quality of life, and oral opiates and Doxepin were discontinued. Two years post-procedure there is no significant right-sided pain (mild intermittent left flank pain is controlled with aspirin and paracetamol p.r.n). Discussion Localised thromboses are a common cause of pain in VMs. Our patient’s rapid and dramatic response to multi-modal therapy (field blockade/oral analgesia/aspirin) targeting several components of the pain pathway, following years of treatment-resistance, reflects the complex nature of her chronic pain and suggests that central sensitisation (CS) contributed significantly to its development. CS is a complex process in which neuro-chemical changes occur following frequent/prolonged painful stimuli (including inflammation and thromboses). Eventually, worsening/persistent pain is perceived, despite unchanged/absent stimuli. There has been just one other report of DH sensory input inhibition for the treatment of VM-related pain (using a spinal cord stimulator). Conclusion We propose field blockade (local anaesthesia and steroid) as a useful, minimally-invasive adjunct in the treatment of this previously unreported underlying cause of VM-related chronic resistant pain.

Commercial Support: None identified
P2600: Academic physicians’ attitudes towards implementation of multidisciplinary cosmetic centers and the challenges of subspecialties working together

Schroeder, Kinney, Levender, Feldman

Presentation Time: Friday, August 5, 2011 from 1:00:00 PM to 1:05:00 PM

Background: Academic centers have begun creating multidisciplinary cosmetic centers in response to increasing public demand for these services. Purpose: Our purpose was to assess interest in such a center among the specialties that would be involved at Wake Forest University Baptist Medical Center. Methods: A pilot study was performed, in which 6 Wake Forest physicians from the departments of dermatology, plastic surgery, otolaryngology, and ophthalmology were surveyed on their attitudes regarding multidisciplinary cosmetic centers and towards other specialists providing cosmetic services. The survey included both open-ended questions and multiple-choice opinion statements to assess opinions on multidisciplinary cosmetic centers and collaboration between disciplines. Results: Among survey respondents, the overall opinion on multidisciplinary cosmetic centers was positive. Perceived benefits included improved patient care, resource sharing, increased opportunity for multidisciplinary research, improved resident education, and increased cross-referrals. Concerns included potential friction and increased competition among providers with the implementation of a multidisciplinary approach to cosmetic services. Limitations: This survey was a pilot study, thus the data is limited by small sample size. Conclusion: Academic physicians are interested in participating in a multidisciplinary cosmetic center. This survey helps to reveal potential pitfalls of such a center, which is an important step towards constructing a practice model that minimizes conflict between specialists and maximizes cooperation and collaboration, ultimately optimizing patient care and outcomes.

Commercial Support: None identified
P2601: Development and use of a submental fat rating scale

Walker, Lee

Presentation Time: Friday, August 5, 2011 from 1:10:00 PM to 1:15:00 PM

Introduction: Many individuals, including those who are not overweight, have fat under their chin which they consider undesirable and which may not respond to weight reduction measures. There are currently no approved pharmacologic therapies for reducing submental fat (SMF), so liposuction and surgical neck lifts are the only treatment options. ATX-101 is based on an endogenous bile acid with adipolytic properties that is being evaluated as a minimally invasive pharmacologic therapy for SMF reduction. To evaluate its efficacy, and facilitate quantitative assessments of the severity of SMF, it was first necessary to develop a reliable rating scale. Methods: Aesthetic medicine experts used facial photographs (frontal, profile, and oblique views) from 50 volunteers to identify the most clinically relevant characteristics for describing SMF. The experts then developed a 5-point photonumeric scale, with text descriptions, to classify the convexity of SMF as absent, mild, moderate, severe, or extreme—to delineate clinically recognizable differences in SMF severity. In order to evaluate whether data obtained using this Clinician-Reported Submental Fat Rating Scale (CR-SMFRS) were reproducible, and therefore whether the scale was clinically meaningful, its intra-rater and inter-rater reliability were assessed. The CR-SMFRS was used by 7 expert raters (board-certified dermatologists and board-certified plastic surgeons) to evaluate SMF severity in 66 volunteers. The volunteers were assessed in random order, once in the morning and once in the afternoon. Results: Intraclass correlation coefficients were 0.821-0.940 for intra-rater reliability and 0.781 for inter-rater reliability. The majority of raters provided the same rating for 94% of subjects. These data indicate satisfactory intra-rater and inter-rater reliability—as reliability had been defined a priori as an intraclass correlation coefficient of >0.80 (which was achieved for the intra-rater reliability data), or 0.41-0.80 with an agreement of >75% (which was achieved for the inter-rater reliability data). Conclusion: The CR-SMFRS rating scale is a reliable instrument and the first scale available for evaluating reductions of SMF. It should prove valuable in assessing SMF severity in both clinical trials and clinical practice, and has already been shown to be an effective tool for assessing the efficacy of ATX-101 in Phase II clinical trials.

Commercial Support: Supported by Kythera Biopharmaceuticals, Inc.
Background: Fractional Er:YAG laser has been used with good effectiveness for the treatment of various dermal and epidermal skin lesions. Objective: To report our experience on the effectiveness of fractional Er:YAG laser using different energy parameters in the treatment of different benign skin lesions. Materials and methods: In this study, 24 patients with different epidermal-dermal skin lesions were included. Patients were examined before the treatment, one week after each treatment session and at one month after the last treatment session. Improvement was judged both by clinical examination of the patients and by comparing pre- and post-treatment photographs. Results were graded in four groups using percent resolution as: 0-25% (poor), 26-50% (mild), 51-75% (good), and 76-100% (excellent). Results: Twenty four patients (9 seborrheic keratoses, 5 solar lentigines, 5 syringomas, 3 xanhtelasma palpebrarum, and 2 epidermal nevus) had completed the study. 79.2% of the patients (19/24) showed excellent results (76-100% improvement). Good results (51-75% improvement) were achieved in 16.7% of the patients (4/24) and mild results (26-50% improvement) was achieved only one patient (4.1%)(1/24). All patients achieved very satisfied or satisfied results. Conclusion: Fractional Er:YAG laser was found to be effective with minimal downtime and no side effect in the treatment of different dermal-epidermal skin lesions.

Commercial Support: None identified
P2701: The use of the 1450-nm diode laser in the nonablative treatment of acne scarring in Fitzpatrick skin types IV-VI: A prospective clinical study

Semchyshyn, Prodanovic, Varade

Presentation Time: Friday, August 5, 2011 from 1:30:00 PM to 1:35:00 PM

Introduction: People with Fitzpatrick skin types IV – VI are becoming a larger proportion of our patient base and although acne scarring is a difficult problem to treat in all skin types, it presents a greater challenge in darker skin types due to an increased risk of scarring and post inflammatory hyperpigmentation. Few studies have focused on infrared laser treatment of acne scarring in darker skin types and the goal of this study is to assess the efficacy and side effect profile of the use of the 1450-nm diode laser in this patient population. Results: 83% of subjects had clear improvement which was maintained from the first to the last post treatment visit (12 months post treatment). A degree of post inflammatory hyperpigmentation was noticed in 56% of subjects. Additionally, the subjects noted improvement in oiliness, smoothness and pore size. Conclusion: Our findings show the nonablative 1450-nm diode laser to be safe and effective in improving the appearance of atrophic acne scars in darker skin types. Post Inflammatory hyperpigmentation was a common occurrence.

Commercial Support: None identified
P2702: Correction of acne scars with fractional CO2 laser in darker skin - assessment results and side effects

Metelmann

Presentation Time: Friday, August 5, 2011 from 1:40:00 PM to 1:45:00 PM

Twelve patients of both sexes aged 20 to 45 years and phototypes IV to VI according to Fitzpatrick were selected (table 1). They had prior use of the association tretinoin 0.05%, hydroquinone 4% and fluocinolone acetonide 0.01% cream for a 1 month. All were instructed to use aciclovir 600mg/day for 5 days starting one day before the procedure. Prior to the beginning of the session, were given tablets of diazepam 10mg, codeine and paracetamol (30/500 mg)orally, and topical lidocaine 4%. The equipment used: SmartXide DOTTM (DEKA/Firenze/Italy) available fractional CO2 laser. Were used as parameters: spacing of 200 mJ, depth of 2ms and power of 30 W, with single pass across the full face. On the second day lamellar crusts covered the face and complete scaling was observed until the seventh day after the procedure. There was a reactivation and worsening in a patient two days after the procedure, subsequently controlled with oral antibiotics. Hiperpigmentation was noted in four patients, in areas near bony proeminentes, with gradual regression. The results were evaluated by team - types of scars - and by each patient - reduction, hiperpigmentation and clearing of lesions (table 1).

Commercial Support: The machine was given by DEKA/Firenze/Italy
P2703: Treatment of photoaging with CO2 fractional laser – evaluation of results and complication in ten dark-skinned patients

Metelmann, Barros

**Presentation Time: Friday, August 5, 2011 from 1:50:00 PM to 1:55:00 PM**

We selected 10 patients aged over 40 years, phototypes IV to VI by Fitzpatrick classification and 3 to 4 by Glogau classification of photoaging (table 1). All previously used tretinoin 0.05%, hydroquinone 4% and fluocinolone acetonide 0.01% cream for 01 month before the procedure. Acyclovir 600mg per day was prescribed for five days, beginning one day before the procedure. For analgesia, before the session, were administered diazepam 10mg, paracetamol 500mg, codeine phosphate 30mg and, topically, lidocaine 4 %. The equipment used SmartXide DOT™ (DEKA/Firenze/Italy) – provided the CO2 laser ultrapulsed and fractioneted. Were used a fractional as parameters: spacing of 600mJ, depth 1,2ms and power of 30W, with just one passed across the face. On the second day, lamellar crusts covered the face and complete peeling was observed until the seventh day post-op. The eritema lasted on average 30 days. In order to assess the results in each patient see table 1.

Commercial Support: Machines given by DEKA/Firenze/Italy
We selected 15 patients with deep acne scars (ice-picks, shape of tunnels and craters) to be “subjected” to CROLL’S technique (fractional CO₂ laser localized only in the scars). Patients had no comorbidities that might contraindicate the procedure. We prepared the skin with a combination of hydroquinone 4%, tretinoin 0.05% and fluocinolone acetonide 0.01% for 30 days before the “session”. Lidocaine 4% was used as a topical anesthetic 30 minutes before the procedure. After cleaning the skin, the CO₂ fractional laser “SmartXide DOT™(DEKA/Firenze/Italy)” was applied only in the scars. The spot size chosen was similar to the size of the lesion (Hexagon), spacing 200mJ, laser depth of 2ms, power of 30W (Figure 1). After the procedure the patients were instructed to use daily colored sunscreen. If necessary (blazing, crusts, prolonged erythema) we recommended application of fusidic acid in combination with betamethasone valerate. RESULTS: The patients treated with this technique had satisfactory results noticed after 30 days of CO₂ localized laser session (Figures 2,3). The number of sessions ranged from one to three. The patients with higher phototype showed erythema and localized post-inflammatory hyperpigmentation, but it disappeared completely in 60 days. We didn’t have any case of hypopigmentation after 24 months of follow-up. We observe that the scars improved, many of them disappeared and the deeper ones became more superficial.

Commercial Support: Machine was given by DEKA/Firenze/Italy
**P2705**: Effectiveness of 595nm pulsed dye laser in the treatment of basal cell carcinoma and squamous cell carcinoma in situ

Tran, Lee, Jiang

**Presentation Time: Friday, August 5, 2011 from 2:10:00 PM to 2:15:00 PM**

Purpose of Study: Basal cell carcinomas (BCC) and squamous cell carcinomas (SCC) are the most common cause of cancer worldwide. BCCs and SCCs, like many other tumors, develop a supporting vascular network through the process of angiogenesis that support the tumors’ growth. Previous studies by others have shown that selective destruction of the vascular support of BCC and squamous cell carcinoma in situ (SCCIS) can diminish their size and cause complete regression in some cases. The parameters in these studies, however, were limited in their laser setting choices and required multiple visits on the part of the patients. In our pilot study, we are examining multiple laser settings to determine the setting that is most effective in causing tumor regression and/or clearance in a single treatment. **Design/Methods Used:** Patients requiring surgical excision for biopsy-proven BCC or SCCIS were enrolled at the pre-operative visit and randomly assigned to one of three study arms. The first arm of the study is the control group in which no PDL treatment is performed. The second arm of the study uses a previously published setting of 15J/cm2, 3ms pulse length, no dynamic cooling, 7mm spot size, 2 passes. The third arm of the study was designed to increase the depth of penetration by increasing the spot size and is set at 7.5J/cm2, 3ms pulse length, no dynamic cooling, 10mm spot size, 2 stacked pulses. After surgical excision, the tissue sample is sent for histological evaluation where it is analyzed for the presence of residual tumors and is scored as a complete response if no histological tumor remains and incomplete response if residual tumor remains. **Summary of results:** Our preliminary data show that a single treatment with the 595nM pulsed dye laser treatment can induce a high degree of damage to the remaining tumor at the histological level, with destruction of its underlying vasculature. Furthermore, the preliminary data suggest that increasing the spot size and stacking the pulses is capable of completely clearing the tumors in a single treatment. Upon completion of all excisions and histological examination, the data will be analyzed to determine the effectiveness of the 595nM pulsed dye laser in the treatment of BCC and SCCIS using the two separate settings.

**Commercial Support:** None identified