What's New in Nail Disorders

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DISCLOSURE OF RELATIONSHIPS WITH INDUSTRY

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S030  What's New in Nail Disorders

DISCLOSURES

What’s new in nail disorders

Nail psoriasis
Psoriasiform nail reactions
Brittle nails
Onychotillomania
Traumas
Trachyonychia
Pyogenic granulomas
Yellow nail syndrome
Melanonychia
Nail psoriasis

Biologics

All very effective

Response is slow, mostly noticeable after approximately 12 weeks

Nail psoriasis

Biologics: don’t really know what’s the best for nails

Anti-TNFα

Anti-Interleukin (IL)-17

Anti-IL-12/23

Studies difficult to compare due to different outcome measures
Nail psoriasis

Apremilast: effective, improvement noticed at week 16 and continued through week 32 and maintained through week 52

Apremilast, an oral phosphodiesterase 4 inhibitor, in patients with difficult-to-treat nail and scalp psoriasis: Results of 2 phase III randomized, controlled trials (ESTEEM 1 and ESTEEM 2)

Phoebe Rich, MD; Melinda Gooderham, MD; Hervé Bachelez, MD, PhD; Joanna Goncalves, MD; Robert M. Day, PhD; Rongdean Chen, PhD; and Jeffrey Crowley, MD.
Portland, Oregon; Peterborough, Ontario, Canada; Paris, France; Warren, New Jersey; and Bakersfield, California

Background: In the phase III double-blind Efficacy and Safety Trial Evaluating the Effects of Apremilast in Psoriasis (ESTEEM 1 and 2), apramilast, an oral phosphodiesterase 4 inhibitor, demonstrated efficacy in moderate to severe psoriasis.

Objective: We sought to evaluate efficacy of apramilast in nail/scalp psoriasis in ESTEEM 1 and 2.

Methods: A total of 1255 patients were randomized (2:1) to apramilast 30 mg twice daily or placebo. At week 16, placebo patients switched to apramilast through week 32, followed by a randomized withdrawal phase to week 52. A priori efficacy analyses included patients with nail (target nail Nail Psoriasis Severity Index score ≥1) and moderate to very severe scalp (Scalp Physician Global Assessment score ≥3) psoriasis at baseline.

Results: At baseline, 66.1% and 64.7% of patients had nail psoriasis; 66.7% and 65.5% had moderate to very severe scalp psoriasis (ESTEEM 1 and 2). At week 32, apramilast produced greater improvements in nail...
Allergic psoriasiform reactions from gel polish manicure

Onycholysis and subungual hyperkeratosis of all fingernails

Mattos Simoes Mendonca M, LaSenna C, Tosti A. Severe Onychodystrophy due to Allergic Contact Dermatitis from Acrylic Nails. Skin Appendage Disord. 2015 Sep;1(2):91-4.
Allergic psoriasiform reactions from gel polish manicure

2HEMA and 2HPMA most commonly positive

Patch tests with acrylates!
Allergic psoriasiform reactions

Treatment

Short course of systemic steroids

Topical steroids
Brittle nails

What to do beside prescribing biotin?

Consider glycolic acid chemical peels!
Chemical peeling for dry dull nails

Protect the cuticle and PNF with petrolatum.

Apply glycolic acid 70% with a cotton tip.

Wash with plain water after 45 minutes.

Chemical peeling for nail plate surface abnormalities

8% phenol with 15% TCA (pH 0.5)

70% GA peel (pH < 1)
Brittle nails

Biotin 10 mg day

Always tell patients to discontinue treatment 1 week before having lab tests

Biotin treatment can potentially interferes with streptavidin–biotin immunoassays

Brittle nails

FDA approved for brittle nails

Hydroxypropyl-chitosan (HPCH) nail laquer

Poly-ureaurethane (16%) nail solution

Avoid tangential filing and buffering!
Onychotillomania

Diagnostic features

Absence of cuticle
Absence of the nail plate
Crusts and hemorrhages
Melanonychia

Patients usually admit to use instruments to clean the nails
Onychotillomania

Treatments

N acetylcysteine 1200/1800 mg day

Manicuring/pedicuring

Behavioral modification (habit reversal)

Traumas

Patients ask for a treatment!

Transitory changes

Permanent nail changes
Traumas

Transitory changes

Treatment: silicone toe separator
Traumas

Permanent changes

Tattooing

Same technology utilized for nipple tattooing

Trachyonychia

Brittle thin nails with excessive longitudinal ridging

Most commonly associated with alopecia areata

Nail changes might regress spontaneously
Trachyonychia

Patients with severe nail disease can seek for treatment

Efficacy of tofacitinib recently reported
Trachyonychia


Trachyonychia

Six patients published until now

All of them also had alopecia areata

Two required more than 5 mg twice a day

Nail improved even in patients who did nor regrow hair
Trachyonychia

No information on long term benefit

Alopecia areata relapses after drug discontinuation and even during treatment

Seems aggressive approach for a benign disease.
Pyogenic granulomas

Topical propanolol

Photodynamic therapy
Pyogenic granulomas

Topical propanolol 1% cream

Small open study

10 patients once a day under occlusion

PG due to chemotherapy 3
PG due to ingrowing toenails 5
PG due to friction 2

Pyogenic granulomas

Topical propranolol 1% cream

- PG due to chemotherapy cured in fingernails only
- PG due to ingrowing toenails no response
- PG due to friction cured

Pyogenic granulomas

Photodynamic therapy

16% 5-methyl aminolevulinate acid for 2 hours

Irradiation with LED 635 nm.
3 sessions (every 20 days)

Fabbrocini et al Photodynamic therapy for periungual pyogenic granuloma-like during chemotherapy: our preliminary results. Supportive Care in Cancer in press
Yellow nail syndrome

Nail Changes
- Growth arrest
- Nail overcurvature
- Loss of the cuticle

Respiratory disorders
- Bronchiectasias
- Chronic bronchitis
- Sinusitis

Lymphedema
Yellow Nail Syndrome

Possible treatments

- Vitamin E 1200 UI/day
- Itraconazole (400 mg/day 1 week/month)
- Fluconazole 150/300 mg weekly
- Topical Minoxidil ?

*Treatment of underlying disorders*
Topical minoxidil for nail growth

5% topical minoxidil twice a day

<table>
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<th>Week</th>
<th>Control mean</th>
<th>95% CIs</th>
<th>Treatment mean</th>
<th>95% CIs</th>
<th>P value</th>
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<td>6.33</td>
<td>6.30, 7.06</td>
<td>7.46</td>
<td>7.28, 7.54</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Overall effect of treatment, P < 0.001.

Yellow Nail Syndrome

Treatment of underlying disorders

Yellow Nail Syndrome

Treatment of underlying disorders

Longitudinal melanonychia
First presentation of nail melanoma

Longitudinal melanonychia

Should we biopsy or excise?

An excisional biopsy is recommended for pathological evaluation of the whole lesion.

Several cases of delay in treatment of nail matrix melanoma due to false negative incisional biopsies are reported in the literature.
Longitudinal melanonychia

Excisional biopsy

Small lesions (< 3mm) can be removed with a punch

Larger lesions can be removed with a tangential biopsy of the nail matrix
Longitudinal melanonychia

Punch biopsy

Punch should be obtained from the nail matrix after removal of the nail plate
Longitudinal melanonychia
Tangential shave biopsy

Pathological diagnosis was made in all cases

No post op dystrophy 74%

Thank you!

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