Pearls from the Mayo Clinic

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Tattoo infections

- Tattoos very common (>24% in US adults); Infection uncommon
- Clinical ranges from erythema to papules and plaques, nodules and abscess
- Non-tuberculoid mycobacterial (NTB) infection seen
- Diluted or prediluted “gray” ink culprit many cases
- Dilution done with tap water: M. cheloneae most often
- Pathology may not be sufficient: Culture needed

MMWR 61(33);653-656, Aug. 12, 2012
Leprosy distribution

Figure 2: 2015 U.S. HD Cases by Reporting Jurisdiction

U.S. Department of Health and Human Services
Health Resources and Services Administration National Hansen’s Disease Program
Leprosy

- Hansen disease (HD)
- 1994-2011: 2,323 new cases of HD in US (0.45/1,000,000)
- 6,500 persons living with HD in US
- Oceania most frequent source
- M. leprae most often
- 2008: M. lepromatosis
  - Mexico and Caribbean
  - Associated with diffuse lepromatous lesions
Syphilis

• New primary and secondary (P&S) cases on the rise since 2001
• 2015: 23,872 cases; 19% increase-7.5 cases/100,000
• Rate increases in women greater than men (27.3 % vs 18.1%)
• HIV highest in MSM (50%), lowest in women (3.9%)
• Rise in congenital syphilis parallels P&S in women

2015 STD surveillance//www.cdc.gov/std/stats15/syphilis.htm
Infections: Pearls

- Mycobacterial infection: In tattoo, think tap water diluted ink
- Leprosy: Think of Oceania but keep US born in mind; M. lepromatosis (lepromatous)
- Syphilis: On the rise again for past 16 years; Not just MSM, women as well
Morphea recurrence

Disease recurrence in localized scleroderma: a retrospective analysis of 344 patients with pediatric or adult-onset disease
Mertens, Seyger, Kievit, Hoppenreijs, Jansen, et al.  
Results
344 patients were included in the analysis
119 (35%) had pediatric-onset LoS and 225 (65%) had adult-onset LoS.
Disease recurrence: 27% (n = 32) of the pediatric-onset group
17% (n = 39) of the adult-onset group (P = 0.037).
Multivariate analysis identified a statistically significant association between disease recurrence and the linear LoS of the limbs subtype, independent of age at disease onset.
Morphea and LS&A

High Frequency of Genital Lichen Sclerosus in a Prospective Series of 76 Patients With Morphea. Toward a Better Understanding of the Spectrum of Morphea


• 76 Patients with Morphea: 29 with LS
  – 49 plaque morphea: 22 LS
  – 18 linear morphea: 1 LS
  – 9 generalized morphea: 6 LS
Postirradiation morphea (PIM)

- Characteristics and treatment of postirradiation morphea: A retrospective multicenter analysis
  - Fruchter, Kurtzman, Mazori, Wright, et al.
- 22 patients, 3 medical centers over 15 years (2015)
- Onset within months to 6 years
- Multiple treatments: Half topical or IL, half oral or phototherapy
- Oral or phototherapy appears superior to topical or IL therapy
UVA1 therapy in Sclerodermoid GVHD

• 24 patients
• Doses: Low (20-40 J/cm²); Med (40-80 J/cm²); High (80-120 J/cm²)
• Low dose: 0 improved
• Med dose: 4/4 improved
• High dose: 12/13 improved
• Avg. number of treatments: 32

• Connolly, Griffith, McEvoy, Lim. UVA1 phototherapy beyond morphea. *Photodermatol Photoimmunol Photomed* 2015; 31:289-295
UV therapy in Morphea

Phototherapy for sclerosing skin conditions

Teske, Jacobe Clinics in Dermatology 2016 34:614-622

Comprehensive review of current literature

UVA1 (peak 370nm), BBUVA, NBUVB

Benefit in Morphea, LS&A and systemic sclerosis, sclerodermoid GVHD, NSF

Level of evidence: Case series, controlled trials and controlled and randomized trials, expert opinion

Good responses to all three modalities

Treatment numbers in the 25 to 40 range; 3x/week
Janus Kinase inhibitors

• Target Janus Kinase (JAK)/signal transducer and activation of transcription (STAT) pathway
  – Tofacitinib/Xeljanz: JAK1/3: RA; Psoriasis, AA, Atopic dermatitis
  – Ruxolitinib/Jakafi: JAK1/2: Myelofibrosis and PCV; Psoriasis, AA, vitiligo and GVHD
  – Baricitinib/JAK1/2: Psoriasis, atopic dermatitis, GVHD, JDM SAVI

• Current review of published studies: Favorable action in these skin diseases but more work needed

Shreberk-Hassidim, Ramot, Zlotogorski. JAAD 2017;76:745-753
Antimalarials and Retinopathy

Recommendations on Screening for Chloroquine and Hydroxychloroquine Retinopathy (2016 Revision)
Marmor, Kellner, Lai, Melles, Mieler
Ophthalmology 2016;123:1386-1394

What’s new?
  Toxicity related most closely to dose and real (not ideal) weight over time
  Risk rises sharply at 20 years of use
  Baseline screen and then annual screening at 5 years unless higher risk
  There may be genetic differences between European and Asian eyes
Table 1. Major Risk Factors for Toxic Retinopathy

<table>
<thead>
<tr>
<th>Daily dosage</th>
<th>Duration of use &gt;5 Yrs, assuming no other risk factors</th>
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<tbody>
<tr>
<td>HCQ &gt;5.0 mg/kg real weight</td>
<td>Renal disease: Subnormal glomerular filtration rate</td>
</tr>
<tr>
<td>CQ &gt;2.3 mg/kg real weight</td>
<td>Concomitant drugs: Tamoxifen use</td>
</tr>
<tr>
<td>Macular disease: May affect screening and susceptibility to HCQ/CQ</td>
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</tr>
<tr>
<td>Alternative: Quinacrine (Atabrine) – On its way out as option</td>
<td></td>
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CQ: chloroquine; HCQ: hydroxychloroquine.
Assessment of zoster vaccination status before starting immunosuppressive regimens
Waiting at least 14 to 30 days after zoster vaccination is recommended before immunosuppressive medications
ACIP guidelines do not preclude zoster vaccination for patients taking azathioprine 3.0 mg/kg/d or less, methotrexate 0.4 mg/kg/wk or less or systemic corticosteroids for less than 2 weeks or at less than 20 mg/d (prednisone equivalent)
Pearls-Summary

• Think about infections: tattoo reactions, lichenoid inflammation, facial edema
• Morphea may recur and LS&A may coexist
• Post-irradiation morphea and GVHD can be treated in a similar fashion to idiopathic morphea
• Phototherapy may be of use in sclerodermoid diseases: Requires many treatments; New treatments on the horizon
• Recall new guidelines for eye screening with HCQ/CQ
• Remember to vaccinate when possible before immune suppression therapy