An Approach to Common and not so Common Rashes in the Office – FMF 2014

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Common Rashes

Tinea Corporis:

- Annular- this is not the only criteria
- Advancing erythematous edge
- Often scaling
- Pruritic, but not usually as intensely as dermatitis
- Diagnose with skin scraping for KOH

Atopic Dermatitis:

- Dry skin with erythematous patches
- Very itchy, may be excoriated
- Flexures are common sites. Often symmetrical
- Personal or family history of atopy
- Often colonized with staph
- Swab to r/o MRSA, but treat for infection based on clinical appearance

Nummular Dermatitis:

- AKA discoid eczema
- Seen in adults. Well-defined, erythematous, scaly patches/plaques often on limbs
- Very pruritic; often mistaken for fungal infection
- Surface is dry or *crusted*

- Solitary or multiple lesions Often resolve leaving PIH
- Scraping and or biopsy will help distinguish from tinea

Psoriasis:

- Well-defined annular plaques
- May appear in any age group
- Thick or thin, *silvery* scale
- Knees, elbows, sacrum, scalp most commonly affected sites
- Biopsy will diagnose if uncertain

Guttate psoriasis:

- Pinpoint to 1cm scaling papules and plaques
- History of strep throat 1-2 weeks prior to onset
- More common in children and young adults
- Responds well to nUVB and topical steroids

Medication reaction:

- Mostly maculopapular
- Usually appear within 1-4 weeks of initiating a new medication
- Common causes:
- beta-lactam antibiotics, sulfonamides, NSAIDs, hypoglycemics, thiazide diuretics, allopurinol, anticonvulsants

Contact Dermatitis:

- Acute itchy rash occurs after contact with a substance to which the patient has been previously sensitized
- Common causes: nickel, preservatives, fragrance mix, neosporin, MCI (wet wipes)
- Can occur immediately or up to 4 days after
- Patch testing to aid in diagnosis

Keratosis Pilaris:

- Tiny follicular papules, pustules on upper arms, cheeks, thighs
- Mostly in children and young adults
- Sometimes inflamed because the patient is picking/ squeezing or from friction

Seborrheic Dermatitis:

- Pink skin, greasy scale medial eyebrows, nasolabial folds, ears, scalp, beard, central chest
- Often not itchy

Folliculitis:

- Pink papules and pustules with hair follicle at centre of lesion
- Common areas are beard, scalp, buttocks, thighs
- May be bacterial, fungal, or mechanical
- Swab and/or biopsy aids in diagnosis

Less Common Rashes

Lichen Planus:

- Pruritic, planar, *purple*, polygonal papules & plaques (6 Ps)
- wrists, ankles, lumbar spine- can be everywhere
- Buccal mucosa may show Wickham's striae. Also visible on surface of lesion under dermatoscope
- Can be drug-induced, association with Hep C

Lupus:

- Erythematous papules/ plaques
- Often annular
- Mainly on trunk and sun-exposed face and arms
- May be drug induced
- Biopsy for H&E and immunofluorescence
- Lab work and urinalysis to r/o SLE

Bullous Pemphigoid:

- May present with intact bullae, erosions, or urticarial patches/plaques
- Very pruritic
- Patients are usually over 60
- Skin biopsy of an intact lesion and biopsy for immunofluorescence of normal perilesional skin is diagnostic

Mycosis Fungoides (CTCL):

- May start with macular erythematous patches and progress to more indurated plaques

- May present with erythroderma
- Patients usually over 50
- Often mistaken for dermatitis
- Biopsy is diagnostic, but difficult and multiple and repeated biopsies are sometimes necessary

Dermatitis Herpetiformis:

- Very pruritic papules and vesicles with a red base. Most often on scalp, shoulders, buttocks, elbows and knees
- Often seen with crusts and excoriations and may be confused for dermatitis or scabies
- Caused by gluten intolerance
- Patients may or may not have GI symptoms
- Biopsy for H&E and immunofluorescence for dx

Secondary Syphillis:

- Appears 3 weeks to 3 mos after the painless chancre (pt may not have been aware had this)
- Red/brown papules/ patches. Often on palms and soles.
- Erosions in mucous membranes
- May have fatigue, joint pain, lymphadenopathy
- Check VDRL

Meningococcemia:

- Petechiae/purpura (don't blanch)
- Most often on trunk and extremities
- Associated with fever, headache, neck stiffness, low back pain, nausea and vomiting, seizures, confusion

History:

- Try to get a brief history and then look at the rash. This will allow you to focus the history appropriately

- If no obvious cause then ask about drug exposures, new contact exposures (insects, plants, chemicals), travel, chronic illness, personal or family history of atopy and/or skin diseases

Physical Exam: Patient age

- Bullae in a child are more likely to be infectious (bullous impetigo, bullous tinea) whereas in the elderly are more often going to be autoimmune

- Full body macpap eruptions in children more are likely to be infections (ie viral exanthems, scarlet fever, meningococcemia) or guttate psoriasis whereas adults are more often drug reactions

- Certain diseases are very rare in children such as lichen planus, dermatitis herpetiformis, nummular dermatitis, mycosis fungoides

Physical Exam: Symptoms

Pruritis:

- *Common:* atopic dermatitis, contact dermatitis, insect bites, lichen planus, nummular dermatitis, scabies, urticaria, varicella

- *Variable:* drug eruption, erythema multiforme, folliculitis, guttate psoriasis, kawasaki disease, pityriasis rosea, plaque psoriasis, tinea corporis, viral exanthema

- *Absent or Rare:* Fifth disease, keratosis pilaris, lyme disease, meningococcemia, roseola, scarlet fever, seb dermatitis, secondary syhpillis

Distribution:

- Flexure surfaces: atopic dermatitis, tinea

- Extensor surfaces: psoriasis, dermatitis herpetiformis, nummular dermatitis, keratosis pilaris

- Scalp: folliculitis, psoriasis, seb derm, dermatitis herpetiformis, tinea capitis

- Mucous Membranes: lichen planus, pemphigus, erythema multiforme/SJS

- Palms and soles: psoriasis, erythema multiforme, scabies, secondary syphilis, lichen planus

Some rashes have a very characteristic distribution:

- Pityriasis rosea: herald patch with collarette of scale then smaller lesions in xmas tree pattern

- Seborrheic dermatitis: greasy scale in medial eyebrows, nasolabial folds, scalp, upper central chest

- Plaque psoriasis: scalp, elbows, knees, sacrum

- Scabies: web spaces of fingers, wrists, elbows, knees, groin, belt-line, axillae, feet

- Lichen planus: inner aspect of wrists, ankles, lower legs, oral mucosa, genitals

- Keratosis pilaris: backs of the arms, lat cheeks, thighs

Morphology:

Colour: most are pink/red however...

- violaceous: lichen planus
- red/brown: secondary syphilis, pityriasis lichenoides
- red and non-blanching: meningococcemia, vasculitis

Scale:

- fine, silver: psoriasis
- greasy, adherent: seb derm
- at the periphery: tinea, pityriasis rosea

Investigations:

- **Annular, dry, scaly** –do a skin scraping
  - KOH takes a few days
  - will identify your yeasts
  - mycology takes 21 days
  - dermatophytes can be cultured
  - **Angry red, pustular –** do a C&S swab

  - **Blisters (vesicles or bullae)** – do a viral swab to show herpes simplex, varicella, zoster

  - **Uncertain diagnosis -** Infiltrate .5-1cc 1% lidocaine with epi; 3mm **punch biopsy** (+/- suture) for H&E

- If you suspect the following, do an additional biopsy(place in Michael's medium) for **immunofluorescence**

    - **Lesional skin**: lupus erythematosus, mixed connective tissue disease, vasculitis, porphyria cutanea tarda, lichen planus

    - **Peri-lesional skin**: pemphigus and pemphigoid groups, dermatitis hepertiformis