Dermatology Potpourri: Interesting Cases

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Session Objectives

• Name common contacts in phytophotodermatitis

• List two common causes of Majocchi Granuloma

• List two treatment options for Granuloma Annularae
31 YEAR OLD MALE

- Two day history pruritic, tender papules and vesicles
- Recent camping trip
- Recent fever, headache, lethargy, “flu symptoms”
- Developed rash on trunk day two
- Day three increased lesions spreading to entire body with increased lethargy and fever
DIFFERENTIAL DIAGNOSIS

• Rocky Mountain Spotted Fever
• Lyme Disease
• Varicella
Rocky Mountain Spotted Fever

- 2-4 days after infected tick bite
- Fever
- Headache
- Nausea, Vomiting
- Abdominal pain
- Muscle pain
RMSF

• Rash appears 2-5 days after onset of symptoms
• Macular, erythematous
• Begins on extremities, spreads to trunk
• Petechiae appear on sixth day or later
Lyme Disease

- Fever
- Headache
- Fatigue
- Rash at site of tick bite
  - circular outwardly expanding rash (erythema migrans)
  - innermost portion dark red, indurated (bull’s eye)
Varicella

- Prodrome nausea, anorexia, myalgias, headache
- Vesicles and pustules
- Begins on head and trunk, spreads to extremities
- Lesions at various stages of healing
VARICELLA TREATMENT

- Valacyclovir (Valtrex) 1 gm TID x 7 days
- Famciclovir (Famvir) 500 mg q8h x 7 days
- Acyclovir (Zovirax) 800 mg qid x 5 days
- Symptomatic care
- IMMUNIZE
10 year old female

- Developed blisters and itching on legs and hands while on vacation
- Lesions have not spread
- Slight itching
Differential Diagnosis

- Burns
- Atopic Dermatitis
- Contact Dermatitis
- Child Abuse
- Berloque Dermatitis
Berloque Dermatitis

- Redness and blisters in bizarre shapes
- Exposure to plants, especially those in celery, citrus, and grass family
- Plants produce psoralen on the skin
- Exposure to sunlight produces photodermatitis with blister formation, followed by intense stimulation of melanin
Berloque Dermatitis Causes

• Citrus and Lime found in drinks and food
  – Figs
  – Celery
  – Lemon and Lime oil
  – Queen Anne’s lace
  – Giant Russian hogweed

• Bergapten
  – Component of bergamot oil
  – Found in cosmetics, perfumes, lotions, sunscreens and household products
Workup

• Clinical suspicion

• Photopatch test if photoallergy suspected:
  – Occlusive application of test chemical(s)
  – Irradiation with UV light at several intervals
  – Phototoxicity: controls positive
  – Photoallergy: controls negative
Treatment

• Remove offending substance
• No treatment necessary if asymptomatic
• Topical corticosteroids if pruritic
• Analgesics
• Sunscreen
• Treat resulting PIH
23 YEAR OLD MALE

- Multiple pits on soles of feet
- Feet, socks, and shoes damp
- Malodorous
- Asymptomatic
DIFFERENTIAL DIAGNOSIS

- Tinea
- Warts
- Pitted Keratolysis
- Dyshidrosis
PITTED KERATOLYSIS

- Superficial bacterial infection of the soles of the foot, lateral toes, occasionally palms
- Asymptomatic erythematous plaques and shallow pits; occasionally painful
- Often misdiagnosed as tinea
- Hyperhidrosis, moist socks, humid environment, occlusive shoes and prolonged immersion in water are predisposing factors
PITTED KERATOLYSIS MANAGEMENT

- Remove environment, promote dryness
- 20% aluminum chloride BID
- Alcohol-based benzoyl peroxide
- Topical erythromycin or clindamycin
8 year old female

- Developed red, pruritic rash
- Began as small cut at oral commissure
- Spreading to chin and cheeks
Neosporin Contact Dermatitis

• Neomycin: 2010 Allergen of the Year
  (American Contact Dermatitis Society)

• Remove offending agent
5 YEAR OLD MALE

- Erythematous plaque in bizarre shape on upper right arm
- Pruritic
- Recent travel to Mexico
DIFFERENTIAL DIAGNOSIS

- Sunburn
- Atopic dermatitis
- Contact dermatitis
- Irritant dermatitis
CONTACT DERMATITIS TREATMENT

- Topical corticosteroid BID x 2 weeks
- Moisturizer
- Sunscreen
58 year old Female

- Annular plaques on upper back
- Red borders with scale
- Central clearing
- Recent vacation with sun exposure
Differential

- Tinea corporis
- Nummular Dermatitis
- Psoriasis
- Sarcoidosis
- Lupus
- Syphilis
- Drug eruption
- Photodermatitis
Diagnostics

- ANA, CBC with Differential, ESR (sedimentation rate)
- UA
- Biopsy
  - Hematoxylin and eosin staining (H & E)
  - Direct immunofluorescence (DIF) on lesional and peri-lesional skin
Lupus Management

- Refer to rheumatology and dermatology for co-management
- Sunscreen
- Topical and intralesional steroids
- Oral steroids
- Azathioprine
- Cyclophosphamide
- Cyclosporine
- Plaquenil
- Mycophenolate
- Methotrexate
- Benlysta
63 Year Old Male

- Long standing history of folliculitis on hips, buttocks, and lower back
- Coincidental history of tinea cruris: untreated
- Treated with oral antibiotics and topical corticosteroids without relief
DIFFERENTIAL

• Folliculitis
• Acne Keloidalis
• Scabies
• Kaposi Sarcoma
• Nodular Vasculitis
• Majocchi Granuloma
MAJOCCHI GRANULOMA

• Deep suppurative granulomatous folliculitis
• Common in females who frequently shave
• Commonly occurs as result of use of potent topical steroids on tinea
• Most commonly due to *Trichophyton rubrum*
DIAGNOSIS

• KOH usually negative

• Tissue biopsy

• Gram stains

• Periodic acid-Schiff (PAS) stains reveal fungal hyphae in tissue, surrounded by granulomatous reaction
TREATMENT

- Systemic antifungals: terbinafine x 6 weeks
- Remove exacerbating factors: topical steroids
- Antibiotics for secondary bacterial infections
28 YEAR OLD MALE

- 2-3 cm enlarging non-tender violaceous ulcer with rolled edges on right forearm.
- Tender adenopathy with erythema in antecubetal fossa.
- Visibly enlarged node above the fossa.
- Tender shoddy subcutaneous nodes along lymphatic drainage proximal arm to axillary node.
Past History

- Previously healthy, and currently no acute distress. No recent travel. Family members well.
- Ulcer developed 4 weeks ago.
- Chopping wood 3 weeks prior to ulcer development.
- PCP treated with Keflex 1 week ago without response.
Differential Diagnosis

- Cellulitis
- Sporothrix
- Norcardia
- Brown recluse spider bite
SPOROTRICHOSIS

- Granulomatous fungal infection
- Occurs in all ages in patients exposed to contaminated soil or vegetation
- Usually follows a wound inflicted by a contaminated object (splinter, thorn, straw, grain, rock, glass, cat bite, or cat scratch)
Treatment

- Itraconazole (Sporonox) 100-200 mg/day
- Terbinafine (Lamisil) 250 mg/day
- Fluconazole (Diflucan) 100-200 mg/day
- Amphotericin B 0.25mg/kg - 1.0 mg/kg by slow IV infusion
26 year old Female

- Developed tender, warm nodules on lower extremities
- No change in activities
- No recent illness
- Started OCP 4 months ago
Erythema Nodosum

- 1 to 5 mm red tender subcutaneous nodules
- Extensor surfaces of lower legs
- Occasionally involving arms
- May be self-limiting, resolving in 3-6 weeks
- Onset may be associated with fever, generalized arthralgias, leg swelling, joint pain

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Erythema Nodosum

Epidemiology

• Any age, sex, or ethnicity
• Most common in young adults
• Female: Male 4:1
Erythema Nodosum: Infections

- Strep infections, esp. upper respiratory
- Ulcerative colitis
- Histoplasmosis
- Syphilis, Leprosy
- Sarcoidosis
- Fungal infections: coccisiodomycosis, histoplasmosis
Erythema Nodosum

Underlying Medical Conditions

- Pregnancy
- Inflammatory Bowel Disease: ulcerative colitis, Crohn’s disease
- Sarcoidosis
- Lymphoma
- Leukemia
Erythema Nodosum: Drugs

- Oral contraceptives
- Estrogens
- Antibiotics: sulfonamides, penicillins
- Iodides
- Bromides
Erythema Nodosum Treatment

• Supportive: can be self-healing

• Rest, elevation

• NSAIDS

• Oral or intralesional steroids

• Remove/treat underlying cause
37 YEAR OLD FEMALE

- Annular pink/red papule on dorsal right foot
- Light pink/brown plaques on posterior legs
- Slightly itchy; mostly cosmetically bothersome
- Present for most of past winter
DIFFERENTIAL DIAGNOSIS

• Tinea
• Lichen Planus
• Nummular dermatitis
• Granuloma Annulare
• Erythema Migrans of Lyme disease
• Lupus
• Rheumatoid nodules
GRANULOMA ANNULARE

- Benign inflammatory dermatosis
- Occurs in all age groups, all races; rare in infancy
- Female: Male 2 : 1
- Often asymptomatic, occasionally pruritic
- Most resolve spontaneously without adverse sequelae
TREATMENT

• Intralelional corticosteroid injections
• Topical corticosteroid
• Cryotherapy
• UVB
9 Year Old Male

- Swimming off the coast of Spain
- Presented at ER with hives and lesions on medial right thigh
- Intense stinging and pain
- No SOB
Jellyfish

- Free-swimming non-aggressive gelatinous marine animals surrounded by tentacles
- Tentacles covered with nematocysts filled with venom
- Found near the water surface at dusk
Jellyfish Symptoms

- Intense stinging, pain, rash
- Progressive symptoms: nausea, vomiting, diarrhea, adenopathy, muscle spasms
- Severe reactions cause difficulty breathing, coma, death
Jellyfish Sting Treatment

• Benadryl and acetaminophen or ibuprofen
• Soak area in acetic acid (vinegar), sea water, or 70% isopropyl alcohol 15-30 minutes (fresh water will cause nematocysts to continue to release toxins)
• Remove tentacles with tweezers
• Apply shaving cream or paste of baking powder, shave area with razor or credit card
10 Days Post-Injury
2 Weeks Post-Injury
6 Weeks Post-Injury
36 Year Old Female

- Developed rash on 4^{th} day of vacation in Costa Rica
- Developed papular, pruritic rash after swimming in ocean
- Now spreading on trunk
Seabather’s Eruption

- Pruritic dermatitis
- Hypersensitivity reaction to nematocysts of larval-stage thimble jellyfish
- Sometimes called “sea lice”
Seabather’s Eruption

• Small red papules on areas covered by water-permeable clothing during ocean swimming
• Upon leaving the ocean, organisms stuck against skin die, discharge nematocysts
Treatment

• Scratching causes intense itching and swelling
• Prompt removal of swim clothing while wet
• Warm sea-water shower
• Diphenhydramine, topical corticosteroids
54 Year Old Female

- Congenital lesion on right cheek
- Multiple laser treatments in past 18 months with minimal results
43 Year Old Male

- Separation of proximal nail plate on several fingernails
- Toe nails not involved
- Painless
- Cosmetically bothersome
Onychomadesis

- Painless spontaneous separation of proximal nail plate

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Onychomadesis

- Trauma (e.g. subungual haematoma)
- Inflammation or infection (fever, HFM disease)
- Peripheral vascular disease
- Raynaud’s
- Familial trait
37 YEAR OLD FEMALE

• Tender area on right scapula x 2 weeks

• Developed red blisters 3 days ago after working in yard

• Rapidly developed blisters to axilla and chest

• Very tender to touch and with movement
HERPES ZOSTER

- Pre-eruptive phase
  - Sensory phenomena along dermatome: itching, tingling, burning, pain
  - 1-10 days

- Acute eruptive phase
  - Grouped vesicles on erythematous base along a dermatome
  - Pain, often severe; itching
  - 10-15 days

- Chronic phase
  - Persistent or recurring pain lasting 30 days or more, weeks to years
58 Year Old Female

- Annual Skin Exam
- Lesion on posterior L shoulder, scapula, axilla, neck, extending to anterior L upper chest and L upper arm
- Present since early childhood
- Increased slightly in size during teen years
- No problems with lesion
Linear Epidermal Nevus

- Definition:
  - # of mature epidermal cells, hair follicles, or sebaceous glands
  - Appear at birth or develop in adolescence
Linear Epidermal Nevus

**Epidermal Nevi**

- Appear anywhere on the body
- Often linear or oval
- Warty surface
- Majority lesions present at birth
- **DDx:** Warts, ichthyosis, dermatitis, lichen striatus
- **Treatment:** Excision, keratolytics, patient education
6 month old male

- Large congenital lesion
- Increasing in size with growth
- Lesion crosses mid-line
Congenital Hairy Nevus

- Lie in the distribution of a dermatome
- Vary in size to cover large areas
- Uneven pigment brown→black
- 95% have hairy component
- Numerous pigmented nevi co-exist in lesion
- Consult neurology if lesion is large or crosses the midline
21 Year old Female

- Nevus on dorsal foot
- Present since childhood
- Recently increasing in size
- Developing red ring around lesion
• Tattoo in and around lesion 5 years ago
• Lesion has always been cosmetically bothersome; patient thought tattoo would help
Dysplastic Nevi

- 2-5% Of Caucasian population
- Type A: no family member with dysplastic nevi or melanoma: lifetime risk of developing melanoma ~6%
- Type B: Dysplastic Nevus Syndrome:
  - 100/more moles
  - 1/more moles 8 mm
  - 1/more atypical moles
  - FAMMM (familial atypical multiple mole melanoma syndrome):
    - 1/more first or second degree relatives with melanoma
  - lifetime risk of melanoma 500 x general population
Dysplastic Nevi

- Continue to appear throughout adult life
- Variegated color: shades of dark brown to tan and pink
- Irregular borders
- Often larger 6-15 mm
- Appear a young as 5 years
- Cobblestone appearance, or small dark central papule surrounded by lighter brown macule (fried egg)
- Higher incidence with sunburns before 20 years of age
Dysplastic Nevi Treatment

• Grading:
  – Mild: Observe, annual exam
  – Moderate: Conservative excision, annual exam
  – Severe: Excision 5 mm margins, annual exam

• Biopsy of changing nevi

• Annual Skin Exam

• Self Exams

• **Sunscreen**

• Protective clothing
References


- Goodhearts, Herbert P. Goodheart's Photoguide to Common Skin Disorders, Third Edition, Lippincott Williams & Wilkins 2009


- Skin Cancer Foundation

- National Conference of State Legislatures