Neuropsychological Cutaneous Disorders

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Cutaneous Signs of Psychiatric Illness

• Skin is frequent target for emotional stress
  – Compulsive or repetitive hand washing
  – Lip lickers dermatitis
  – Bulimia
    • **Russell’s sign** – lichenified papules on the dorsum of the hand from repetitive rubbing by teeth
  – Onychophagia (nail biting) or skin biting
Delusions of Parasitosis

• Patient may pick small pieces of epithelial debris from skin and bring them to be examined
  – “Matchbox” or “Ziplock” sign

• No objective evidence
  – Must r/o organic conditions, neurologic conditions, malignancies, endocrine disorders, infectious etiology
Delusions of Parasitosis

• **Etiology**
  – Fixed and **false belief** that patient suffers from parasitic infestation
  – Close contacts may share delusion
  – Other mental capabilities intact

• **Symptoms**
  – Formication
    • Cutaneous sensation of crawling, stinging, biting
  – Pruritus

• **Epidemiology**
  – Women:Men, 2:1
  – 50-60's
  – Paranoid tendencies
Delusions of Parasitosis

• **Diagnosis**
  – Skin biopsy
    • Assure patient - counseling
    • Exclude occult disease
  – Screening tests
    • CBC, CMP, LFT, UA, Thyroid function, Iron studies, Vitamin B 12

• **Treatment**
  – Pimozide: antipsychotic drug-blocks dopaminergic receptors
    – Side effects: prolongs QT interval, extrapyramidal reactions, tardive dyskinesia
  – Risperidone
  – Olanzapine
Neurotic Excoriations

• **Etiology**
  – Uncontrollable desire to pick or scratch
  – Lesions tend to be found on non-dominant side of the body

• **Epidemiology**
  – Middle aged
  – Female > male
  – Closely related to Obsessive Compulsive Disorder (OCD)
Neurotic Excoriations

• Clinical:
  – All stages of evolution
    • Erosions
    • Deep circular or linear ulcerations
    • Hypo or hyperpigmented scars
    • Well-healed scars
  – Favors
    • Scalp
    • Face
    • Upper back
    • Forearms
    • Shins
    • Buttocks
Neurotic Excoriations

• Treatment
  – Control pruritus
  – Doxepin
    • Antipruritic, antidepressant, H1/H2 antihistamine
    • Side effects: May prolong QT interval, seizure disorder, urinary retention
  – OCD
    • Serotonin Selective Reuptake Inhibitors (SSRIs) or Tricyclic Antidepressants (TCAs)
Prurigo Nodularis

• Presentation
  – Chronic, hyperpigmented, scaly nodules
  – Pruritus is severe
    • Limited to lesions
  – Mainly on the extremities
    • Anterior thighs and legs
Prurigo Nodularis

• **Etiology**
  – Unknown

• **Organic factors may contribute:**
  – Atopic dermatitis
  – Hep C
  – HIV
  – Renal disease
  – Pregnancy
  – Stress
  – Lymphoproliferative diseases
Prurigo Nodularis

• Histopathology
  – Compact hyperkeratosis
  – Irregular acanthosis
  – Hypergranulosis
  – Perivascular lymphocytic infiltrate in the dermis
  – Increased vertical streaking of dermal collagen (especially in the dermal papillae)
Prurigo Nodularis

• **Treatment**
  - Super potent topical steroids
  - Intrallesional steroids
  - PUVA
  - NB-UVB
  - Vitamin D3 ointment
  - Tacrolimus
  - Isotretinoin
  - Thalidomide
  - Pregabalin
  - SSRIs, TCAs, Doxepin
  - Cyclosporin
  - Cryotherapy
Lichen Simplex Chronicus

• Presentation
  – Thickened lichenified skin
  – Exaggerated normal skin lines
    • Striae form a crisscross pattern
  – Predilection
    • Back
    • Sides of the neck
    • Wrist and ankle flexures
    • Vulva, scrotum, anal area
Lichen Simplex Chronicus

• **Etiology**
  – Long term chronic rubbing and scratching
  – May result in dermal deposits of amyloid
  – Predisposing factors
    • Xerosis, atopy, stasis dermatitis, anxiety, obsessive–compulsive disorder, and pruritus related to systemic disease

• **Histopathology**
  – Hyperkeratosis
  – Irregular acanthosis
  – Hypergranulosis
  – +/- vertical collagen bundles in the papillary dermis
Lichen Simplex Chronicus

**Treatment**

- Cessation of pruritus
- High-potency topical steroid
  - Occlusion with medium-potency topical steroids
- Adjunctive tx
  - Topical doxepin
  - Topical capsaicin
  - Topical pimecrolimus or tacrolimus
Acne Excoriee

- Scratching and picking acne lesions
- Young women
- Associated with OCD
- Management
  - Doxepin
  - SSRI
Dermatitis Artefacta

• AKA *factual dermatitis*

• Etiology
  – Self-inflicted cutaneous lesions
  – With the intent to
    1. Illicit sympathy
    2. Escape reality or
    3. Collect disability insurance
  – Patient denial

• Epidemiology:
  – Middle aged women 3x > men
  – Correlation with *borderline personality disorder*
Dermatitis Artefacta

• **Clinical**
  - Usually within reach of hands
  - Unusual shapes
  - If chemical is used-red streaks/guttate marks seen beneath the principle patch where the chemical accidentally fell off skin
  - The only sign may be non-healing wound

• **Common agents for destruction:**
  - Fingernails, pointed instruments, hot metals, chemicals

• **Chronic course, waxes and wanes**
Dermatitis Artefacta

- **Pathology**
  - Not diagnostic
  - Erosion, ulceration, hyperkeratosis, vascular proliferation, fibroplasia

- **Management**
  - Occlusive dressing - to prevent patient from reaching the wound
  - SSRIs, TCAs, antipsychotics
Trichotillomania

- **Etiology**
  - Non-scarring alopecia, due to habitual hair pulling
  - Most commonly seen in *young girls*
  - Associated with OCD

- **Clinically**
  - Areas of alopecia, with *varying lengths of broken hairs* within the localized area
  - Common locations:
    - Scalp
    - Eyebrows
    - Eyelashes
Trichotillomania
Trichotillomania

• Histology
  – Deformed hair shafts (*trichomalacia*)
  – Pigmented hair casts within the follicles
  – Empty follicles
Trichotillomania
Trichotillomania

- Treatment
  - Behavior modification
  - TCAs, SSRIs
  - Hypnosis
Body Dysmorphic Disorder

• A preoccupation with a non-existent defect in appearance

• Presentation
  – Socially isolated
  – Adopt compulsive or ritualistic behaviors
  – *Olfactory reference syndrome* - preoccupied with the notion that they emit an unpleasant odor
    • Engage in compulsive behaviors such as repetitive showering
Body Dysmorphic Disorder

• Epidemiology
  – 1% of the population or 10-14% of those screened in a dermatology office
  – Mean age of onset is 34
  – Males and females equally affected

• Treatment
  – Obsessions category which falls within the OCD spectrum
    • SSRIs – 10-12 week trial then continue treatment for at least 6 months
  – Delusions category which falls within the psychotic spectrum
    • Antipsychotics
Gardner-Diamond Syndrome

• Synonyms: *Psychogenic purpura* or *autoerythrocyte sensitization*

• Etiology
  – Factitial disorder associated with abnormal response to bruising
  – Predominantly seen in women
  – Accompanies psychiatric illness
**Gardner-Diamond Syndrome**

- **Clinically**
  - Sudden onset of painful, swollen bruises
  - Characteristic atypical lesions with abnormal morphologies
  - Patients induce their own lesions by:
    - Injuring previously traumatized skin
    - Injecting own blood or other agents

- **Treatment**
  - Confronting patient is typically not useful
  - Gentle probing of underlying psychiatric cause
  - Treat underlying psychiatric illness
Notalgia Paresthetica

• **Etiology**
  – Focal pruritus over the *medial scapular region*
  – Occasionally accompanied by pain, paresthesias, or hyperesthesias
  – Often described as a deep sensation
  – Thought to be a sensory neuropathy, with underlying spinal nerve impingement

• **Clinically**
  – Well circumscribed hyperpigmented patch
  – Normal skin
Notalgia Paresthetica
Notalgia Paresthetica

• Histology
  – Melanophages in the papillary dermis, induced by chronic rubbing
  – Overlap with macular amyloidosis (keratin)
    • Will stain positive with:
      – Congo Red (apple green birefringence on polarization)
      – Thioflavin T
      – Crystal Violet
Notalgia Paresthetica
Notalgia Paresthetica

• Treatment
  – Topical capsaicin 5 times per day for 1 week, then 3 times per day for 3-6 weeks
  – Topical corticosteroids
  – Topical anesthetics (pramoxine, lidocaine)
  – Gabapentin
  – Acupuncture
  – Osteopathic manipulation
Trigeminal Trophic Syndrome

• Self-induced ulcerative condition of the central face
• Generally involves the nasal ala
• Presentation
  – Small crust that develops into a crescentic ulcer
  – Often mistaken for basal cell carcinoma (BCC)
• Etiology
  – Triggered by paresthesias and dysesthesias
    • Occur secondary to impingement of or damage to the sensory portion of the trigeminal nerve, the Gasserian ganglion
  – Other causes include infection, stroke and CNS tumors
Trigeminal Trophic Syndrome
Trigeminal Trophic Syndrome

• **Histology**
  – Ulceration with signs of chronic trauma  
    • Scarring, lichenification, and/or pseudoepitheliomatous hyperplasia

• **Treatment**
  – Medications: carbamazepine, diazepam, amitriptyline and pimozide
  – Physical barriers and patient education
Thank You