Folliculitis

Background

1. Definition
   - Inflammation of hair follicle
2. General info
   - Can occur in any part of the body that has hair
   - Usually caused by irritation of the overlying skin from different causes (friction from tight clothing, shaving)

Pathophysiology

1. Obstruction of hair follicles/pilosebaceous glands causing inflammation
   - Infectious, chemical, autoimmune etiologies
     - Idiopathic: most common
     - Coagulase positive *Staph.*: most common infectious
     - *Pseudomonas*: poorly chlorinated whirlpools, hot tubs (usually clears within 7-10d)
     - Eosinophilic (Ofuji's disease): extremely pruritic, HIV pts. with CD4 <200
2. Risk factors
   - Shaving hairy areas
   - High temperature and humidity
   - Medications: topical steroids, systemic antibiotic

Diagnostics

1. **Symptoms**
   - Rash in hair-bearing areas; may have mild discomfort
     - Pruritis more severe w/*Pseudomonas*, eosinophilic
   - Usually without systemic symptoms
   - Hx of hot tubs (*Pseudomonas*), HIV (eosinophilic), long-term antibiotic Tx (gram-negative), HSV infection
   - Severe cases: F, malaise, painful
2. **Physical Exam**
   - Erythematous papules/pustules with central hair
     - Scalp, face, thighs, axilla, groin
     - Eye lash (Meibomian ducts): hordeolum (stye)
   - Atrophic scars, alopecia: healed lesions
   - Multiple (50) lesions around bathing suit area (*Pseudomonas*)
   - Acne-like lesions on back, chest, face (*Pityrosporum*)
   - May involve deeper tissues: abscesses, furuncles
     - More systemic signs
   - Superficial form heals without scarring
   - Deep form may scar
3. **Diagnostic Testing**
   - Mostly a clinical diagnosis
   - Labs
     - C&S, Gram Stain: differentiate organism
   - Other Diagnostic Testing
     - KOH prep: rule out Tinea

- Further Testing
  - CBC w/diff, immunity w/u: if eosinophilic
  - Cultures, KOH prep, punch Bx: Tx failures, uncertain Dx
  - Culture family member nares: rule out carriers

Differential Diagnosis

1. Acne Vulgaris
2. Cutaneous Candidiasis
3. Irritant Contact Dermatitis
4. Fire Ant Bites
5. Insect Bites
6. Pseudofolliculitis Barbae
7. Scabies
8. Tinea Barbae
9. Tinea Capitis
10. Tinea Corporis
11. Urticaria

Acute Treatment

1. Hot tub folliculitis spontaneously resolves within a week once no longer in hot tub
   - Antibiotics may increase recurrence rate
2. Empiric antibiotics (unless pathogen known)
   - Topical: erythromycin, clindamycin
   - Dicloxacillin, cephalosporins x10d (Tx *Staph.*: most common)
3. Superficial form
   - Spontaneously resolves but topical antibiotic often given
     - Erythromycin
     - Clindamycin
     - Mupirocin
     - Benzoyl peroxide
4. Deep form
   - Treated with oral antibiotics (1st gen ceph, macrolide, quinolone)
5. Specific Tx
   - *Pseudomonas*: ciprofloxacin (may heal without Tx)
     - Often associated with whirlpool/hot tub use
   - *Pityrosporum*: ketoconazole
   - *HSV*: acyclovir
   - Eosinophilic: topical corticosteroids, isotretinoin, metronidazole, itraconazole
6. Gram negative folliculitis requires stopping systemic antibiotic
   - Return to benzoyl peroxide use topically and Rx with ampicillin or TMP-SMX and in more severe cases may be treated with Isotretinoin
7. Pruritis: antihistamines (diphenhydramine)
8. Recurrent *Staph.* folliculitis: mupirocin cream in nares BID x5d

Follow-Up

1. Mostly unnecessary unless deeper infection
2. Follow up with PCP within 2wks
    - If no improvement in 2-4wks consider alternate Dx
    - Dx/Tx underlying diseases if present
3. Home Care
    - Warm compresses to lesions
    - Wash w/antibacterial soap, water
    - Avoid close/frequent shaving; change razors daily
4. Prevention
    - Wear loose fitting clothes
    - Good hygiene, bathe frequently
    - Soak razors in 70% EtOH for 1 hr to eliminate pathogens
    - Have family members wash linens/clothes separately
    - Properly chlorinate hot tubs/swimming pools

Prognosis

1. Excellent

Prevention

1. Lose weight
2. Avoid excessive heat/humidity
3. Reduce shaving

References

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