Seborrheic Dermatitis

Background

1. Definition
    - Common condition of skin regions rich in sebaceous glands characterized by flaking, erythema, itching
    - May present at all ages
    - In infants often presents as "Cradle cap" on the scalp and in adults as a rash in the nasolabial folds and brows, chest, axilla, under breasts, around the umbilicus or scalp

Pathophysiology

1. Pathology of disease
    - Etiology unknown but several hypotheses
        - Fungal infection
            - Causal relationship with yeasts Malassezia furfur and Malassezia ovalis
            - Also associated with HIV/AIDS
        - Hormone levels
            - Correlated with infancy and re-appearance at puberty
        - Nutritional
            - Mechanism unclear
        - Altered fatty acid pattern
            - Associated with infantile variant
        - Neurogenic factors
            - Higher percentages in those with Parkinsonism, post-CVA, epilepsy, CNS trauma, facial nerve palsy, syringomyelia
2. Incidence, prevalence
    - Men > women
    - Infants < 6 months (usually)
    - Adolescents, young adults; adults 30-60 years
    - 1-3% in immunocompetent adults
    - Underreported in mild cases
3. Risk factors
    - Unrelated to personal cleanliness
4. Morbidity / mortality
    - Psychosocial is primary morbidity in most
        - Secondary infection may produce weeping dermatitis/crusting
        - If involves 90% or more of body referred to as erythroderma or exfoliative dermatitis
        - Erythroderma Desquamativum (Leiner's disease)
            - Severe seborrheic dermatitis with diarrhea and lymphadenopathy in infants
            - Check for immunodeficiencies (SOR:C)[1]

Diagnostics

1. History
    - Itching, scaling, burning (active phase)
    - More in winter, early spring; followed by inactive period, in characteristic locations
2. Physical exam
    - Red, flaky greasy appearance in scalp (dandruff), eyebrows, lid margins (blepharitis), behind ears, nasolabial folds, pre-sternal, axilla, navel, groin, infra-mammary, anogenital; hypopigmentation in blacks; symmetric distribution
    - 2 rash types on chest
        - Petaloid
            - Reddish brown, follicular, and peri-follicular papules with greasy scales
            - Papules may expand to flower-petal shaped patches
        - Pityriasiform (less common)
            - Generalized macules and patches, common on trunk and neck, similar to pityriasis rosea
    - Infantile
        - 2nd week - 6 months (or longer)
            - Scalp (cradle cap = pityriasis capitis), face, ears, flexural folds
            - Symptoms mild
            - Resolves with time on own in most
3. Diagnostic testing
    - Usually not required
    - If in doubt, skin scraping/biopsy to rule out tinea infection although often responds to topical antifungals anyway

Differential Diagnosis

1. Scalp
    - Tinea capitis, psoriasis, infected eczema
2. Face
    - Rosacea, facial chapping, SLE
3. Body
    - Atopic eczema, psoriasis, tinea versicolor, drug eruptions , candidiasis (groin), staph blepharitis
4. Infants
    - Atopic eczema, scabies, psoriasis, irritant contact dermatitis

Therapeutics

1. High recurrence rate, goal is most often control, not cure
    - If severe/widespread, assess if diagnosis correct or if patient immunocompromised
2. Infants
    - Will spontaneously resolve in wks-months

- Overnight soak with baby oil, white petroleum jelly; wash with baby shampoo
- If ineffective, ketoconazole 2% cream once daily
  - Ketoconazole appears to be safe and efficacious for infants with cradle cap
  - Other OTC topical antifungals also likely effective.
- Topical steroids not advised other than possibly briefly for diaper areas

3. Adults and adolescents
   - Scalp and beard
     - Tx may include topical keratolytics, antifungals and steroidal creams/liniments
     - Antifungals (2-3 times/wk for 2-4 weeks)
       - Ketoconazole 2%
       - Clotrimazole 1%
       - Selenium sulfide 1% (Selsun Blue) or 2.5% (Exsel, Sesun)[2,3]
     - Keratolytics (2-3 times/wk initially then as needed)
       - Coal tar (DHS Tar, Zetar, Ionil T Plus)
       - Salicylic acid 2% cream/gel/lotion/shampoo (Fostex, Stidex)
       - Sulfur 2-3% cream/lotion/shampoo
       - Pyrithione zinc 1% (Dandrex, Zincon, Head & Shoulders) and 2% (DHS Zinc, Sebulon)
       - Patient should leave in hair at least 5 mins to ensure these agents get deep into scalp
       - Warm mineral oil with combing of crusts also used.
     - Topical steroids/liniments (2-4 wks)
       - Shampoo (fluocinolone, twice weekly)
       - Steroid solutions (fluocinolone, once daily)
       - Lotion (betamethasone valerate, once daily)
       - Cream (desonide, once daily)
       - Effective in treatment of adult seborrheic dermatitis of scalp (SOR:C)[1,4]
   - Face and body
     - Antifungal shampoos (listed above) can be used frequently on affected areas
     - Ketoconazole 2% cream, 1-2/day for 4 wks or until clinical clearing
       - Consider mild corticosteroid cream to settle inflammation quickly
       - Ketoconazole qD topically with desonide qD for 2 weeks may be useful for facial dermatitis
     - Topical calcineurin inhibitors (eg tacrolimus ointment, pimecrolimus cream) for face, ears once daily; have fungicidal and anti-inflammatory properties
       - Daily use for 1 week necessary before benefits seen (SOR:B)[1]
   - Blepharitis
     - Gentle cleansing of eyelid margin twice daily with cotton swab dipped in 1/2 cup warm water containing 2-3 drops baby shampoo

Follow-Up

1. F/U if poor response to treatment, worsening symptoms, infection
2. Refer to specialist
    - Severe, widespread
    - Diagnostic uncertainty
    - No response to treatment

Patient Education

1. http://familydoctor.org/online/famdocen/home/common/skin/disorders/157.html

Evidence-Based Inquiry

1. What is the best treatment for cradle cap?

References

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