PSYCHODERMATOSES

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OBJECTIVES

- Give one example of each type of psychodermatoses
- Describe the treatment of choice for delusions of parasitosis
- Discuss optimal treatment choices for scabies

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CLINICAL PEARL

- More patients with psychiatric disorders are seen in dermatology than in primary care practices. There are three types of psychodermatoses:
  - Psychophysiological disorders
    - Patients have a skin condition which worsens with emotional factors
  - Primary psychiatric disorders
    - No dermatological disorder but findings are induced by the patient.
  - Secondary psychiatric disorders
    - Patients who develop psychological problems as a result of a skin disorder which is disfiguring.

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PSYCHOPHYSIOLOGICAL DISORDERS

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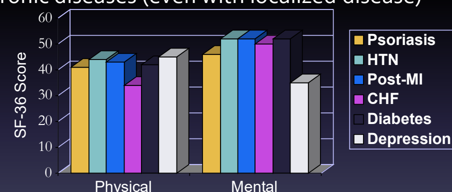
Psoriasis vs Other Conditions

- Reduction in QoL comparable to that in other chronic diseases (even with localized disease)



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SF-36, short-form health survey (36 questions); HTN, hypertension; MI, myocardial infarction; CHF, congestive heart failure.
Rapp SR et al. *J Am Acad Dermatol.* 1999;41:401-407.

Emotional Impact of Psoriasis 18-34 year old patients

Frustration with treatments	90%
Concern that disease would worsen	88%
Feelings of embarrassment	81%
Feelings of unattractiveness	75%
Depression	54%
Contemplation of suicide	10%

- National Psoriasis Foundation

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Depression in Psoriasis

- High levels of pro-inflammatory cytokines (TNF) are associated with major depression, fatigue, and sleepiness
- Treatment of psoriasis with biologic therapy has shown to improve depression
- Improvement of depression with biologic therapy did not have a strong correlation with PASI scores

- Dabbous et al: Deyo-Charlson Comorbidity Index

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Carrol Rating Scale for Depression: Clinical Depression >10

Non-cystic facial acne	5.6% suicidal ideation
Alopecia Areata	0% suicidal ideation
Atopic dermatitis	2.1% suicidal ideation
Psoriasis	
– Outpatients	2.5% suicidal ideation
– Inpatients	7.2% suicidal ideation

Gupta MA, Gupta AK: "Depression aqnd suicidal ideation in dermatology patients with acne, alopecia areata, atopic dermatitis and psoriasis. British Journal of Dermatology: Nov, 1998.

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Psychosocial Impact of Atopic Dermatitis

Appearance is not always the best indicator of severity

- Mental distress
  - Anxiety
  - Depression
  - ADHD
- Increased emotional stress
  - Sleep disruption due to itching
  - Embarrassment
- Increased prevalence for suicidal ideation

Illi S, et al. *J Allergy Clin Immunol.* 2004;113:925-931; Thyssen JP, et al. *Allergy.* 2018;73:214-220.

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- Some cutaneous disorders, such as atopic dermatitis, can cause significant sleep problems secondary to itching and discomfort.
- This has an impact on the patient **and** the family, and frequently results in poor school performance and financial strain due to missed work.

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Clinical Pearls

- Our body image is our *perception* of the way others see us
- Assessing quality of life at baseline of skin treatment provides important information about patients' perceptions.
- Clinicians should not assume that mild disease has mild emotional impact.
- Skin disease is often associated with anxiety, depression, poor academic performance, and higher-than-average unemployment rates.
- In addition to medical management of skin disorders, it is important that clinicians ask about psychosocial and economic concerns to ensure that patients feel heard and that their concerns are validated

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- Health-related quality of life has been correlated with psychiatric morbidity, even more than clinical severity.
- Skin disease is often associated with anxiety, depression, poor academic performance, and higher-than-average unemployment rates. Patients are prone to embarrassment, social withdrawal, and anger.
- Contributing factors include the fact that skin disease treatment often takes longer than some internal disorders.
- Some treatments, such as acne treatment, often make the condition worse before it gets better.
- The rate of depression in psoriasis patients is twice the rate of depression in the overall population.

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PRIMARY PSYCHIATRIC DISORDERS

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CLINICAL PEARL

- Patients with psychodermatosis firmly believe in their self-diagnosis and search for clinicians who believe them. This results in multiple visits to various practitioners. An understanding approach without prejudice is necessary for developing trust and treatment

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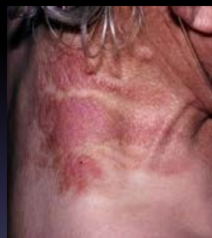
LICHEN SIMPLEX CHRONICUS

- Also called Circumscribed Neurodermatitis
- Eczematous-type dermatitis created by persistent or habitual scratching an area
- Most common in adult females
- Excoriations and lichenification in easy to reach areas
- Only one lesion present
- No other psych disorders



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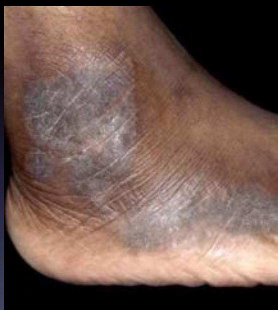
Lichen Simplex Chronicus

- Most common areas
  - Outer lower legs
  - Wrists and ankles
  - Back and sides of the neck (Lichen simplex nuchae)
  - Forearms near the elbows
  - Scalp
  - Genital area
  - Upper eyelids
  - Orifice of the ear and posterior ear
- Secondary bacterial infection is not uncommon



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DIAGNOSIS

- Clinical diagnosis
- Patient admits to scratching area when stressed or upset
- Bacterial culture and sensitivities if secondary infection suspected
- Biopsy shows eczematous inflammation

- ICD 10: L28.0: Lichen simplex chronicus

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LSC Differential

- Other pruritic dermatoses
- AD
- Psoriasis
  - Pearl: these disorders have bilateral distribution, multiple lesions
- Extramammary Paget disease
- Bowen disease
- Mycosis fungoides

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MANAGEMENT EDUCATION

- Difficult to treat
- Break scratch/itch cycle
- Topical Corticosteroids
- Moisturizers
- ABX for secondary infections
- Behavior modification
- Psychoactive medications

- Help pt. understand lesion is self-induced
- Will recur with stress and frustration
- Suggest alternatives to scratching
- CLINICAL PEARL
- Treat pts. with support, empathy, non-discriminate approach

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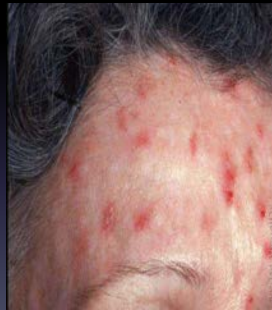
FACTITIAL DERMATITIS

- CLINICAL PRESENTATION:
- Blisters, ulcers, burns in bizarre shape and distribution
- Female:male ratio 4:1
- Pts. cannot identify how lesions evolved
- Lack of concern for how disfiguring lesions are
- Lack of external incentives: financial gain, obtaining narcotics



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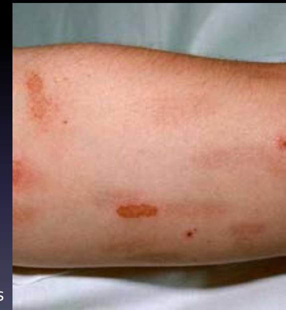
Factitial Dermatitis

- DIAGNOSIS
- Sudden appearance of lesions
- DIFFERENTIAL
  - Impetigo
  - Arthropod reaction
  - Burns
  - Abuse
  - Delusions of parasitosis
- ICD 10: L98.1: Factitial dermatitis



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MANAGEMENT EDUCATION

- Occlusive dressings
- Support and empathy
- Treat secondary infections
- Frequent office visits
- Behavior Modification

- Develop trusting relationship with patients. Help patients understand lesions are self-induced. Be patient and sympathetic.
- Referral: Psychotherapy

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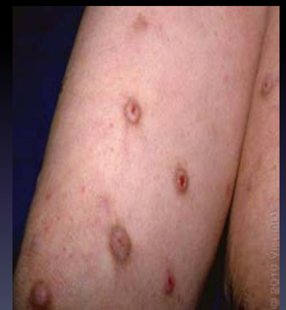
PRURIGO NODULARIS

- CLINICAL PRESENTATION
- Exaggerated form of LSC
- Lesions and dome-shaped nodules, usually arms and legs
- Often scars from previous lesions
- Pruritic, interfere with sleep
- Can last years
- Often secondary infection present
- Usually over 45 years



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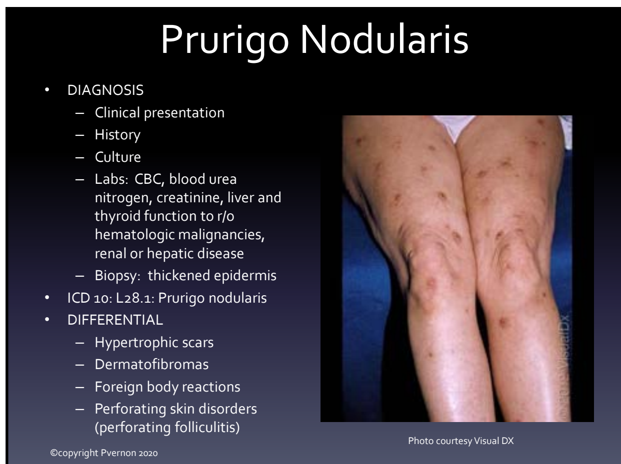
Prurigo Nodularis

- DIAGNOSIS
  - Clinical presentation
  - History
  - Culture
  - Labs: CBC, blood urea nitrogen, creatinine, liver and thyroid function to r/o hematologic malignancies, renal or hepatic disease
  - Biopsy: thickened epidermis
- ICD 10: L28.1: Prurigo nodularis
- DIFFERENTIAL
  - Hypertrophic scars
  - Dermatofibromas
  - Foreign body reactions
  - Perforating skin disorders (perforating folliculitis)



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MANAGEMENT EDUCATION

- Difficult to treat and can last for years
- Intralesional steroid injections for largest lesions
- Topical corticosteroids with occlusion
- Antibiotics if secondary infection is present
- Cryotherapy of lesions occasionally effective
- Tranquilizers

- Help patients understand the physiology of pickers nodules
- A trusting and sympathetic approach is important
- Co-management with psych

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Acne Excoriaė

- DSM-5: Skin picking disorder (SPD)
  - Obsessive-compulsive and related disorders
  - Diagnostic Criteria
    - Recurrent skin picking resulting in skin lesions
    - Repeated attempts to decrease or stop skin picking
    - Picking causes significant distress in social, occupational, and other areas of daily living
    - Picking not attributable to physiologic effect of a substance or other medical condition
    - Picking is not better explained by symptoms of another mental disorder

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Acne Excoriaė

- Clinical Presentation
  - Hypo/hyperpigmented scars with active acne lesions
  - Excoriations
  - Most common in females
- Diagnosis
- ICD 10: Acne Excoriė
  - Clinical presentation
  - Patient history
- Differential
  - Scarring cystic acne: does not show evidence of manipulation
  - Factitial dermatitis
  - Medication-induces skin picking: amphetamines, cocaine

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MANAGEMENT EDUCATION

- Acne treatment
  - Topical anti-inflammatories
  - Topical retinoids
  - Topical antibiotics
  - Oral antibiotics
  - Isotretinoin, if appropriate
- Doxepin
- Behavior Modification
- Treat/refer for underlying psychologic disorder

- Teach patients not to touch or pick at lesion
- Explain the scarring and pigment change which results from picking.
- Offer alternatives to picking
- Appropriate acne monitoring
- Recalcitrant cases are referred for psychotherapy and treatment with SSRIs

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BODY DYSMORPHIC DISORDER

- Distorted and unrealistic belief about personal appearance (skin, nails, weight)
- CLINICAL PRESENTATION
- Patient requests multiple cosmetic procedures for perceived imperfections
- Often focused on face, especially nose and mouth, breasts, abdomen, genitalia, and thighs.
- Equal incidence in males and females
- About 1%-2% of the population is affected, but approximately 10% of dermatology patients present for treatment
- History of childhood adversity may be present

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Body Dysmorphic Disorder

- PATHOPHYSIOLOGY
  - Patients are often socially isolated and often have social anxiety
  - Patients admit to spending an inordinate amount of time in front of the mirror checking appearance
- DIAGNOSIS
  - Clinical presentation, history
  - Unrealistic goals for cosmetic procedures
  - Body-focused repetitive behavior disorder
- DIFFERENTIAL DIAGNOSIS
  - Social anxiety disorder
  - Major depressive disorder
  - Eating disorders
  - Psychotic disorders

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Body Dysmorphic Disorder

- ICD 10 Code: F45.22: Body Dysmorphic disorder
- MANAGEMENT
  - Avoid unnecessary cosmetic procedures
  - Screen for suicidal ideations
  - Refer to psychology for cognitive behavioral therapy, antidepressants and antipsychotic medications
- EDUCATION
  - Trusting non-judgmental attitude
  - Respect
  - Keep patient engages
  - Validate their distress
  - Avoid being confrontational

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DELUSIONS OF PARASITOSIS

- Fixed, false belief they are infected by bugs, worms, mites, fungus, or other living organisms
- Patients report multiple visits to dermatologists who do not believe them
- They report multiple exterminators to kill bugs in the home, disinfectant use
- Occasional hx. drug/alcohol abuse
- CLINICAL PRESENTAITON
- Focal erosions with crusts, excoriations and scars
- More prevalent in middle-aged females
- Patients may present with bags containing lint, skin, and other debris

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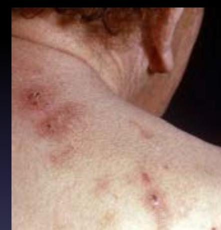
PATHOPHYSIOLOGY

- Considered monosymptomatic hypochondriacal psychosis
- Occasionally associated with schizophrenia, bipolar disorder, depression, anxiety, and obsessive/compulsive disorders



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DIAGNOSIS MANAGEMENT

- Complete skin exam reveals no evidence of infestation. Scars and excoriations may be present
- Careful examination of evidence brought by patient, including KOH prep
- Biopsy
- Crotamiton (Eurax) Cream off-label may be helpful for itching and establishing trust
- Remain composed and respectful, while discussing disorder with patient

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EDUCATION REFERRAL

- Treatment is difficult and takes repeated visits. Encourage patient to focus on treatment rather than disorder
- Remind patients that many dermatology conditions do not have clear etiology
- Co-manage with psychiatry for treatment with antipsychotics
- CLINICAL PEARL
- Do not acknowledge the presence of insects in order to initiate treatment, as this will confirm and perpetuate the patient's belief of infestation

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TRICHOTILLOMANIA CLINICAL PRESENTATION

- Irresistible urge to manually pull hair by manipulation, providing patients with a sense of relief
- The hair may be pulled, twisted, rubbed until it is extracted or broken
- Areas of complete alopecia or drastically thinning hair with irregular or angular borders and short or broken hairs distributed throughout area
- Most common in children, adolescents, and women.
- Female to Male ratio is 2.5:1.
- Areas which are easy to reach are most common, including scalp, eyebrows and eyelashes.
- Repeated pulling or twisting can result in scarring and alopecia, especially in eyebrows and eyelashes.

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PATHOPHYSIOLOGY

- Symptoms may begin as children watch TV, fall asleep, in the classroom, or other times of inactivity
- Often the behavior is not noticed by parents until thinning of hair is present
- Behavior may also be triggered by stress, such as hospitalization, sibling rivalry, or poor parent-child interaction
- Concomitant psychopathology increases the incidence in adolescents and adults

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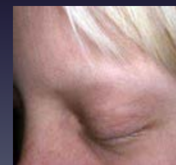
DIAGNOSIS AND DIFFERENTIAL

- The patient should be asked if they pull, twist, or rub their hair
- Plucked hair by gentle hair traction shows no telogen roots. Almost all hair is in anogen phase
- Biopsy extending to subcutaneous tissue shows normal hairs
- Findings most evident in affected areas for <8 weeks
- Tinea Capitus: KOH prep and Wood's lamp evaluation rules out non-inflammatory tinea.
- Alopecia Aerata are completely devoid of hair.



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TREATMENT

- Most patients without underlying pathopsychology improve spontaneously with frank discussion about the findings.
- Providers and caregivers should be understanding and sympathetic
- Redirect activities when hair-pulling is noticed
- behavior persists or there is wide-spread involvement, a psychiatric evaluation is helpful

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EDUCATION CONSULTATION

- Patients and caregivers are usually responsive to open, gentle, conversation
- Periodically asses for relapse
- Psychiatry and psychology should be involved when there is lack of improvement and widespread involvement
- Patient/family counseling helpful

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SECONDARY PSYCHIATRIC DISORDERS

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Pediculosis

- Human parasites; can't live off human host more than 10 days
- *Pediculus humanus var. capitis* (head lice; most common)
  - Girls>boys, Black children rarely affected
  - Back of head, neck most common; secondary infection common
- *Pediculus humanus var. corporis* (body lice rare)
  - Nits in seams of clothing
  - Nits on eyelashes may be sign of sexual abuse
- *Phthirus pubis* (pubic or crab louse)
  - Most contagious sexually transmitted disease
- Infestation through close personal contact, clothing, hats, brushes, etc.
- Nit incubation 8-10 days, maturity 18 days

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Pediculosis

- Suspect lice when itching present in localized hairy area without evidence of other infection
- Resistance to topical medications d/t misuse OTCs
- Nix, RID, Ivermectin Kwell
- Eyelash infestation: Petrolatum, baby shampoo, Fluorescein drops

Diagnosis

- Suspect lice when itching present in localized hairy area without evidence of other infection
- Wood's lamp: unborn louse fluoresce white, empty nits fluoresce gray

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Pediculosis Capitis

- Infestation of the scalp most common in children
- Girls > boys and black children are rarely affected
- Back of the head and neck are most common
- Inflammatory response causes itching, resulting in pustules, crusts, and cervical adenopathy. Secondary excoriations and bacterial infection are not uncommon.
- Eyelashes may be involved, causing erythema and conjunctivitis

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Pediculosis Corporis

- Body lice is rare and usually occurs in poor living conditions
- They lay their nits in the seams of clothing and return to the human host for feeding
- Inflammation causes pruritus and can lead to secondary infection
- Body lice on the eyelashes occurs almost exclusively in children as a result of contact with other infected children or an adult with pubic lice. Eyelash infestation may be a sign of sexual abuse.

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Pediculosis Pubis

- Pubic lice are a highly contagious sexually transmitted disease.
  - One-third of patients infected with pubic lice have another sexually transmitted disease.
  - 90% infection rate in patients who have sexual contact with an infected partner
- While infestation in the pubic hair is most common, heavy infestation may be present in the perianal area, upper thighs and abdominal area
- Most patients complain of itching and feel like something is crawling on the skin. About half of patients show no inflammation. Others develop wide-spread inflammation of the groin with inguinal adenopathy.

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Pediculosis

Diagnosis

- Suspect lice when itching present in localized hairy area without evidence of other infection
- Wood's lamp: unborn louse fluoresce white, empty nits fluoresce gray

Differential

- Scabies
- Seborrheic dermatitis
- Psoriasis
- Folliculitis
- Delusions of parasitosis

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Pediculosis Capitis

Management

- Spinosad topical - adults and children older than 4 y/o
  - Combing hair is not necessary, as this agent is ovicidal.
  - It is recommended as a first-line lice treatment by the American Academy of Pediatrics
  - Pregnancy Category B
- Malathion 0.5% lotion (Ovide) - not indicated in children younger than 6 years
  - It can be used in children 2-5 years whose lice are resistant to permethrin / pyrethrins or have previously failed courses with other treatments
  - Pregnancy Category B
- An ivermectin-formulated lotion (Sklice Lotion) - adults and children >6mths. should not be used for pregnant women
- Eyelash infestation: Petrolatum, baby shampoo, Fluorescein drops

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Pediculosis Corporis

Management and Education

- Rarely found on the skin, they live in and lay eggs on clothing
- Educate the patient about the importance of proper hygiene
- For heavy infestation or when regular bathing/changing are not feasible:
- 5% permethrin cream or lotion head-to-toe for 8-14 hours is advisable
- NCAA return to play: must be treated with appropriate pediulicide and and evaluated for completeness of response before play

- Treat clothing and fomites
  - Clothing and bed linens washed with hot water and dried using high heat
  - Discard or avoid using heavily infested items for 2 weeks (seal in plastic bags)

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Pediculosis Pubis

Management and Education

- Permethrin 1% lotion / cream
- Mousse containing pyrethrins with piperonyl butoxide
- Wash the infested area and towel dry. Apply the product generously to affected areas. Leave product on for the duration. Nits can be forcibly removed from hair shafts with a fine-toothed comb
- CDC recommends sexual partners be notified of possible infestation and should be treated. Advise patients that condoms do not prevent transmission of infestation.
- Report recognition or suspicion of child abuse or neglect

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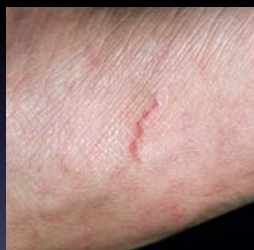
Scabies

- Scabies is a contagious disease caused by the *Sarcoptes scabiei var. hominis*
- The fertilized female mite comes in contact with the skin, burrows in the stratum corneum, and lays eggs. Larva reach maturity in 2 weeks. Adult mites have a 30-day life cycle.
- The reaction is an allergic reaction to the mite proteins and feces, resulting in itching and excoriation



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SCABIES

Clinical Presentation

- *Primary lesions;* pruritic papules and vesicles with S-shaped burrows in web spaces, wrists, sides of hands and feet, penis, buttocks, scrotum and the palms and soles in infants
- *Secondary* lesions; result from scratching characterized by pinpoint erosions. Pustules are significant for secondary bacterial infections.
- Presence of burrows, when patient presents with typical symptoms, and when multiple family members have symptoms
- Nocturnal pruritus is hallmark characteristic
- In infants, wide-spread infection is common, including face and scalp
- Elderly patients may have fewer papules, but exhibit intense itching

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SCABIES

Diagnosis

- Clinical presentation, history, and provider suspicion
- KOH prep revealing mites, eggs, hatched eggs, or feces

Differential Diagnoses

- Allergic, contact, and irritant dermatitis
- Viral exanthems
- Folliculitis

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Scabies

Management

- Bedding , clothing, and upholstered furniture should be decontaminated by dry-cleaning or hot machine washing
- Treat all household members and intimate contacts
- Permethrin cream 5%; neck down, wash after 8-14hrs, repeat in 1 week; safe for pregnant and lactating patients
  - Pregnancy Category B
- Ivermectin 200 µg/kg PO, repeat in 2 wks (off-label for adult)
  - Pregnancy Category C
- Sulfur in petrolatum: <2months, pregnancy
- Crotamiton (Eurax) 10% cream; neck down for 2 consecutive days & rinse 48 hrs after last application
  - Pregnancy Category C

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SCABIES

Education

Persistent itching may not be a symptom of treatment failure, but rather eczematous reaction to the infestation and treatment

- NCAA Guidelines: Complete treatment with negative results of mineral oil preparation
- NFHS Guidelines: 24 hours post-treatment, no evidence of infection
- KOH slide for examination

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Scabies

- Pearl
- Touching the surface of a burrow with a felt-tipped pen will accentuate burrow. Remove residual ink with alcohol swab. The burrow absorbs the ink and is highlighted as a dark line. It may then be scraped with a #15 scalpel blade and transferred to a glass microscope

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Internet Resources

- American Academy of Dermatology, www.aad.org
- American Academy of Pediatrics, www.aap.org
- American Lyme disease Foundation, www.aldf.com
- Centers for Disease Control and Prevention, www.cddc.gov
- DermNetNZ, www.dermnetnz.org
- Mayo Clinic: diseases and conditions, www.mayoclinic.com/health/DiseasesIndex
- Medscape:dermatology; http://emedicine.medscape.com
- National Eczema Association, www.nationaleczema.org
- UpToDate
- VisualDx

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