"Help, I Think I'm Going Crazy!": An approach to pruritus in the elderly

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Indigenous Land Acknowledgement

- We wish to acknowledge the Ancestral Traditional Territories of the Ojibway, the Anishnabe and, in particular, the Mississauga’s of the New Credit whose territory we are gathered on today. This territory is covered by the Upper Canada Treaties.
Presenter Disclosure

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  – Other: None
Objectives

At the conclusion of this session, participants will be able to:

- Perform an initial evaluation (history, physical examination, investigations) to determine the underlying etiology of pruritus.
- Describe the common dermatological and non-dermatological differential diagnoses of the elderly patient with pruritus.
- Implement non-pharmacological and applicable pharmacological treatments for the management of pruritus.
Neurobiology of Pruritus
What is pruritus or itch?
This is an updated version of the original Cochrane review published in 2013 (Issue 6), on “pharmacological interventions for pruritus in adult palliative care patients”. Pruritus, derived from the Latin word *prurire*, which means ‘to itch’, is defined as “an unpleasant sensation associated with the desire to scratch”. This definition of pruritus was introduced in 1660 by the German physician Samuel Hafenreffer (Haffenreffer 1660; Misery 2010; Proske 2010). In modern medicine, the term pruritus is generally used to refer to a pathological condition in which the sensations of itch are intense and often generalised and trigger repeated scratching in
Pruritus in the Elderly

NEUROANATOMY OF ITCH

Cerebral cortex:
- Anterior cingulate
- Somatosensory I
- Somatosensory II

Thalamus:
- Medial dorsal
- Ventral posterior

Midbrain:
- Periaqueductal gray matter

Spinal cord:
- Dorsal horn
- Lateral spinothalamic tract

Contralateral spinothalamic tract ascends to the thalamus
# Table 1: Clinical classification of itch

<table>
<thead>
<tr>
<th>Clinical classification</th>
<th>Mediators and mechanisms</th>
<th>Diagnosis</th>
<th>Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Itch caused by skin disorders</td>
<td>Histamine, interleukins, prostaglandin and proteases</td>
<td>Inflammatory dermatoses (atopic dermatitis, psoriasis, drug reactions, mites and urticaria) and dry skin</td>
<td>Antihistamines, anti-inflammatory, immuno-modulatory topical and systemic therapy (cyclosporine A, pimecrolimus, tacrolimus and corticosteroids)</td>
</tr>
<tr>
<td>Itch caused by systemic disorders</td>
<td>Opiates, interleukins?</td>
<td>Chronic liver disease and chronic renal failure</td>
<td>Naltrexone, (\kappa)-opioid receptor agonists and gabapentin</td>
</tr>
<tr>
<td>Neuropathic itch</td>
<td>Damage to nerve fibres, neuropeptides (such as substance (P)) and proteases</td>
<td>Postherpetic pruritus, notalgia paresthetica and brachioradial pruritus, itch post-CVA</td>
<td>Gabapentin, pregabalin and capsaicin</td>
</tr>
<tr>
<td>Psychogenic itch</td>
<td>Serotonin, noradrenaline</td>
<td>Delusions of parasitosis, stress and depression</td>
<td>Olanzapine, pimozide and SSRI antidepressants</td>
</tr>
<tr>
<td>Overlapping and mixed</td>
<td></td>
<td></td>
<td>Central-acting itch inhibitors and topical anti-inflammatory drugs</td>
</tr>
</tbody>
</table>

CVA, cerebral vascular accident; SSRI, selective serotonin reuptake inhibitor.
Chronic Itch

Pruritus lasting more than 6 weeks
Is pruritus a problem?
Pruritus and QOL

- Most common skin disorder in the elderly
- Worldwide prevalence of **7.3 to 37.5%**
- \( \frac{2}{3} \) rd of geriatric patients reported pruritus as their major skin complaint
- Patients with chronic pruritus are often **sleep deprived**
- 11.5% of hospital admissions in elderly patients
- Effect on QOL comparable to that of **chronic pain or dialysis**
- Recent study: Pruritus ~ visual analogue pain scale 6 in geriatric participants

Kenneth R. Cohen et al. Pharmacy & Therapeutics 2012
## Table 1  Decline of Skin Function in the Geriatric Population

- Cell replacement
- Barrier function
- Chemical clearance capacity
- Sensory perception
- Mechanical protection
- Wound healing
- Immune responsiveness
- Thermoregulation
- Sweat production
- Vitamin D production

Pruritus Work Up
How should I approach the management of pruritus?
Classification of Pruritus

- **Type I**: Pruritus on diseased skin
- **Type II**: Pruritus on non-diseased skin
- **Type III**: Pruritus with chronic scratch lesions
1. Step - Clinical picture only

The patient can be readily assigned to one group

Groups of patients

2. Step

Histological, laboratory and radiological investigation

Categories of diseases

- dermatologic
- systemic
- neurologic
- psychogenic
- mixed
- other

Important Questions

• Did the rash appear first or the pruritus?
• How is the pruritus affecting your life?
1. Step - Clinical picture only

The patient can be readily assigned to one group

Groups of patients

- **Group I**: pruritus on diseased skin
- **Group II**: pruritus on non-diseased skin
- **Group III**: chronic scratch lesions

2. Step

Histological, laboratory and radiological investigation

Categories of diseases

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- other
Type I: Pruritus in primarily diseased, inflammed skin

Pruritus is due to cutaneous illness

Treating the cutaneous illness will result in diminishing or resolution of itch

Delay in treating cutaneous illness can result in sensitization, making it more difficult to treat the pruritus
Differential Diagnoses

Inflammatory dermatoses
Atopic dermatitis, psoriasis, contact dermatitis, dry skin, drug reactions, scars

Infectious dermatoses
Mycotic, bacterial, viral, folliculitis, scabies, pediculosis, arthropod reactions, insect bites

Autoimmune dermatoses
Bullous dermatoses, dermatitis herpetiformis Duhring, bullous pemphigoid, dermatomyositis, chronic urticaria

Genodermatoses/Inherited skin diseases
Darier’s disease, hailey-hailey disease, ichthyoses, Sjögren-larsson syndrome, EB pruriginosa, Grover disease (transient acantholytic dermatitis)

Neoplasms
Examples of diagnoses Cutaneous T-cell-lymphoma (especially erythrodermic variants), cutaneous B-cell-lymphoma, leukaemic infiltrates of the skin
Inflammatory dermatoses

- Atopic Dermatitis [AD]
- Psoriasis
- Seborrheic dermatitis, etc.

- Immunologically mediated superficial skin disease characterized by Hyperplasia, Hyperkeratosis, Spongiosis, Exocytosis etc. There are variable dermal changes.

- Usually scaly, crusty, erythematous and pruritus
Infections

- Viral, Bacterial, Fungal or Parasites
  - Eg. Shingles, impetigo or candida
Urticaria

- Blanching, raised, erythematous patches
- Histamine mediated
- Lesions are transient ~ 24 hours
- Waxes and wanes
- Trigger [heat, alcohol, stress, hormones, spices etc]
- FHx of atopy, NSAID allergy and autoimmune diseases eg. DMII, Hypothyroidism etc
Scabies

- *Sarcoptes scabiei* lays eggs in epidermis
- Intense sudden onset pruritus worse in evening/night (delayed hypersensitivity to mite proteins)
- Lesions: small erythematous papule with excoriations and crust; **burrow** (thin grey/red/brown line)
- Neck, axilla, genitals, finger webs
Bullous Pemphigoid

- Autoimmune blistering disorder
- Prodromal phase: pruritic eczematous, papular or urticaria-like lesions
- Tense bulla on erythematous, urticarial or non inflammatory base + pruritus
- Trunk, extremity, flexures, axilla, inguinal folds, mucosa
- Pruritic non-bullous pemphigoid
Progression and appearance of bullous pemphigoid in dark- and light-skinned individuals

**EARLY**
- Blisters (bullae)
- Hivelike rash

**HEALING**
- Erosions (broken blisters)

**LATE**
- Increased pigmentation
- Erosions
- Blister
1. Step - Clinical picture only

The patient can be readily assigned to one group

**Groups of patients**

- **Group I:** pruritus on diseased skin
- **Group II:** pruritus on non-diseased skin
- **Group III:** chronic scratch lesions

2. Step

**Categories of diseases**

- dermatologic
- systemic
- neurologic
- psychogenic
- mixed
- other
- other

Type II: Pruritus of primarily normal, uninflamed skin

Only secondary lesions

Small excoriations or warty lesions

Spares the back where patients cannot reach
The challenge?

Table 2: Systemic diseases accompanied by generalized pruritus

- Liver diseases
- Primary biliary cirrhosis
- Primary sclerosing cholangitis
- Extrahepatic cholestasis
- Hepatitis B and C
- Kidney diseases
- Chronic kidney insufficiency
- Hematologic diseases
- Polycythemia vera
- Hodgkin disease
- Non-Hodgkin lymphomas
- Leukemias
- Myeloma multiplex
- Iron deficiency
- Systemic mastocytosis
- Hypercosinophilic syndrome
- Myelodysplastic syndromes
- Endocrine disorders
- Hyperthyroidism
- Hypothyroidism
- Hyperparathyroidism
- Diabetes
- Neurologic diseases (neuropathic pruritus)
- Brain injury/tumor (frequently unilateral pruritus)
- Scleroderma multiplex
- Small fiber neuropathy
- Solid tumors (paraneoplastic pruritus)
- Carcinoid syndrome
- Infectious diseases
- HIV infection/AIDS
- Infestations

Table 1: Pruritic skin diseases occurring in the elderly

1. Xerosis (skin dryness)
2. Inflammatory diseases
   - Dermatitis (all forms)
   - Dyshidrotic dermatitis
   - Urticaria
   - Atopic dermatitis/neurodermatitis (rare)
3. Erythematous papulosquamous diseases
   - Seborrheic dermatitis
   - Psoriasis
   - Palmar plantar pustulosis
   - Lichen planus
   - Pityriasis rubra pilaris
   - Darier disease
   - Hailey-Hailey disease
   - Grover’s disease
   - Polymorphic light eruptions
4. Autoimmune blistering diseases
   - Bullous pemphigoid
   - Acquired epidermolysis bullosa
   - Dermatitis herpetiformis
   - Pemphigus vulgaris (rarely)
5. Autoimmune connective tissue diseases
   - Dermatomyositis
   - Systemic sclerosis
   - Sjögren syndrome
6. Skin infections and infestations
   - Herpes simplex
   - Herpes zoster
   - Tinea
   - Candidal intertrigo
   - Malassezia folliculitis
   - Otjui’s disease
   - Scabies
   - Lice (pediculosis)
   - Cutaneous larva migrans
   - Insect bites and arthropod reactions
7. Rosacea
8. Mastocytosis
9. Cutaneous lymphomas
   - Mycosis fungoides and its variants
   - Sézary syndrome

Table 4: List of drugs that could induce pruritus

<table>
<thead>
<tr>
<th>Drug group</th>
<th>Examples</th>
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<tbody>
<tr>
<td>Antihypertensive drugs</td>
<td>Angiotensin-converting enzyme inhibitors</td>
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<tr>
<td></td>
<td>Angiotensin II antagonists (sartans)</td>
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<td></td>
<td>β-Adrenergic blockers</td>
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<td></td>
<td>Calcium channel blockers</td>
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<td></td>
<td>Methyldopa</td>
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<td></td>
<td>Sildenafil</td>
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<td>Antiarrhythmic drugs</td>
<td>Amiodarone</td>
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<td></td>
<td>Lidocaine</td>
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<td></td>
<td>Fractionated heparins</td>
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<td>Antidiabetic drugs</td>
<td>Biguanides</td>
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<td></td>
<td>Sulfonylurea derivatives</td>
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<td>Diabetes and chemotherapeutics</td>
<td>Statins</td>
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<td></td>
<td>Penicillins</td>
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<td>Cephalosporins</td>
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<td>Macrolides</td>
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<td>Carbapenems</td>
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<td>Monobactams</td>
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<td>Quinolones</td>
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<td>Tetracyclines</td>
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<td>Lincomycin</td>
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<td>Streptogramin</td>
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<td>Metronidazole</td>
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<td>Rifampin</td>
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<td>Thiophenicol</td>
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<td>Trimethoprim/</td>
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<td>sulfamethoxazole</td>
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<td>Antimarialids</td>
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<td>Psychotropic drugs</td>
<td>Tricyclic antidepressants</td>
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<td></td>
<td>Selective serotonin reuptake inhibitors</td>
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<tr>
<td></td>
<td>Neuroleptics</td>
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<tr>
<td>Antiepileptics</td>
<td>Carbamazepine, eszopiclone, oxcarbazepine, phenytoin,</td>
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<td>topiramate</td>
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<tr>
<td>Cytostatics</td>
<td>Chlorambucil</td>
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<td>Paclitaxel</td>
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<td>Cytokines, growth factors, and monoclonal antibodies</td>
<td>Granulocyte-macrophage</td>
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<td>Colony-stimulating factor</td>
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<td>Interleukin-2</td>
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<td>Matuzumab</td>
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<td>Lapatinib</td>
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<td>Plasma volume expanders</td>
<td>Hydroxyethyl starch</td>
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<td>Others</td>
<td>Antiarrhythm agents</td>
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<td></td>
<td>Nonsteroidal antiinflammatory drugs</td>
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<td></td>
<td>Corticosteroids</td>
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<td>Sex hormones</td>
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<td>Opoids</td>
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<td>Xanthine oxidase inhibitors</td>
</tr>
</tbody>
</table>

*Table based on ref [6].

Adam Reich et al. Clinics in Dermatology 2011.
Differential Diagnoses

**Endocrine and metabolic diseases**
Chronic renal failure, liver diseases with or without cholestasis, hyperthyroidism, malabsorption, perimenopausal pruritus

**Infectious diseases**
Helminthosis, parasitosis

**Haematological and lymphoproliferative diseases**
Iron deficiency, polycythaemia vera, hodgkin’s disease, Non-hodgkin’s lymphoma, plasmocytoma

**Visceral neoplasms**
Solid tumours of the cervix, prostate, or colon, carcinoid syndrome

**Drug-induced pruritus (selection)**
opioids, ACE-inhibitors, amiodarone, hydrochlorothiazid, estrogens, simvastatin, hydroxyethylstarch, allopurinol
Initial visit

History

• HPI (onset, severity, aggravating/alleviating factors, timing, location)/ROS
• PMHx/Meds/Allergies
• FMHx
• SHx (EtOH/drugs, living arrangement, pets)

Physical Examination

• Vitals
• Full-body skin exam (including hair/nails)
  - Lymph nodes
  - Thyroid
  - Abdomen
<table>
<thead>
<tr>
<th>Condition</th>
<th>History</th>
<th>Physical Examination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xerotic eczema</td>
<td>Improves with bathing, worse when dry; primarily affects lower legs and arms; spares the armpits, groin, face, and scalp</td>
<td>Can have minimal changes; fissured, slightly scaly, poorly defined patches</td>
</tr>
<tr>
<td>Scabies</td>
<td>Severe pruritus; recent stay in long-term care facility</td>
<td>Small papules and linear lesions of the axillae, groin (vulva and scrotum), navel, finger-webs</td>
</tr>
<tr>
<td>Photodermatitis</td>
<td>Photosensitizing medication; worse after sun exposure (eg, long car trip)</td>
<td>Confluent patches favoring dorsal hands, brachioradial arms, “V” upper chest area, posterior neck, and face</td>
</tr>
<tr>
<td>Grover disease</td>
<td>Worse after sweating (even in winter)</td>
<td>2- to 4-mm slightly scaly red papules of the inframammary chest/upper abdomen and central back</td>
</tr>
<tr>
<td>Bullous pemphigoid</td>
<td>Severe pruritus</td>
<td>Urticarial plaques or bullae favoring the inner aspects of proximal arms and thighs and flanks; surrounding erythema may or may not be present</td>
</tr>
<tr>
<td>Drug-induced skin eruption</td>
<td>New medication (eg, calcium channel blocker or hydrochlorothiazide)</td>
<td>Many morphologies; widespread symmetrical erythema</td>
</tr>
<tr>
<td>Cutaneous T-cell lymphoma (mycosis fungoides type)</td>
<td>Long duration; pruritus minimal to severe</td>
<td>Slightly scaly large patches with atrophy at times with pigment change; loss of hair in lesions; often begins on lower back, buttocks, upper thighs (bathing trunk distribution)</td>
</tr>
</tbody>
</table>
What investigations can be ordered?

Laboratory and radiological investigations need to be adapted to the patient's’ history and pre-existing diseases.

CBC, Electrlytes, Liver Enzymes, Renal function, sTSH, HbA1C, Urinalysis, Urine R and M, Inflammatory markers, Skin biopsies (for H&E but also for DIF), skin scraping, Spine imaging to rule out radiculopathy etc.
1. Step - Clinical picture only
The patient can be readily assigned to one group

Groups of patients

Group I: pruritus on diseased skin
Group II: pruritus on non-diseased skin
Group III: chronic scratch lesions

2. Step
Histological, laboratory and radiological investigation

Categories of diseases
- dermatologic
- systemic
- neurologic
- psychogenic
- mixed
- other
- other

Type III: Pruritus with chronic secondary scratch lesions

Only secondary lesions

Patients usually have a back injury/neuronal injury

Most vulvar itch is due to Type III

Severe itch-scratch cycle

Complications: “sensitization” of the itch
Differential Diagnoses

**Neurogenic origin (without neuronal damage)**
Few clinical examples yet, potentially hepatic itch with increased endogenous-opioids (dis-inhibition of itch)

**Neuropathic diseases (neuronal damage causes itch)**
Lichen Simplex Chronicus, Multiple Sclerosis, neoplasms, abscesses, cerebral or spinal infarcts, brachioradial pruritus, notalgia paresthetica, post-herpetic neuralgia, vulvodynia, small fiber neuropathy

**Somatoform pruritus**
Psychiatric/psychosomatic diseases, depression, anxiety disorders, obsessive-compulsive disorders, schizophrenia, tactile hallucinosis, fatigue
Peripheral and Central Sensitization

Peripheral cutaneous nerves become hypersensitive to stimuli and produce progressively worsening pruritus.

Ultimately the dorsal root ganglia are “hardwired” to continuously send abnormal signals causing pruritus. This is called central sensitization. When this occurs, stimuli from the skin and peripheral nerves are not needed to produce pruritus.

Chronic pruritus is learned and it is anatomically fixed in the CNS (dorsal root ganglion)
Lichen Simplex Chronicus
Neurodermatitis

- Lichenified plaques and excoriations
- Due to excessive scratching secondary to intense pruritus
  NOT a primary skin disorder
- Scalp, neck, extensor forearms, scrotum, legs
- Associated with AD, neuropathic pruritus, psychological factors
Histopathology

Microscopic (histologic) description

- Marked hyperkeratosis associated with foci of parakeratosis
- Prominent granular cell layer
- The epidermal rete are elongated and irregularly thickened
- Mild spongiosis
- Perivascular and interstitial inflammation with histiocytes, lymphocytes and occasional eosinophils in superficial dermis
- Occasionally enlarged elongated myofibroblasts, papillary dermal fibrosis, nerve hyperplasia

Lichen Simplex Chronicus

- Slight dermal cellular infiltrate
- Vertical collagen laid down

Hypergranulosis

Mainly orthokeratosis

Prominent dermal papillae

Elongated rete ridges
1. Step - Clinical picture only

The patient can be readily assigned to one group

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- **Group I**: pruritus on diseased skin
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2. Step

Histological, laboratory and radiological investigation

**Categories of diseases**

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- other
- other
Brachioradial pruritus

- Localized, involves the proximal dorsolateral forearm
- “Ice-pack sign” - symptomatic relief with ice
- Etiology: cervical nerve root impingement, sun exposure (fair-skin, sunny climates, worse in summer), spinal tumours
Notalgia paresthetica

- Unilateral, involves skin medial to the scapular border on the mid to upper back

- Nerve entrapment of the posterior rami of spinal nerves T2 to T6

- Findings: scratching, rubbing, hyperpigmentation of the skin
Treatment Options
Repertoire of Treatments

• General Measures
• Topical Therapies
• Systemic Therapies
• Biologic
• Interventional
General Measures

- Counsel on the itch-scratch cycle
- Keep nails short
- Short baths, avoid hot water
- Avoid soaps (oil based cleansers)
- Apply moisturizers immediately after bathing (low pH recommended: Dove, Cetaphil)
- Wear light, loose clothing; avoid irritating fabrics
- Maintain a home humidity of 40% (humidifier in winter; AC in the summer)
Pruritus in the Elderly

The Itch/Scratch Cycle

- **Itching**
  - Allergens and pathogens
  - More itching

- **Scratching**
  - Inflamed skin

- **Skin Barrier Deterioration**
  - More allergens and pathogens entering

**Cycle:**
- Itching → Scratching → Skin Barrier Deterioration → More itching
Pruritus in the Elderly

Topical Therapies

Corticosteroids

- Relieve pruritus via treating underlying inflammation, vasoconstriction and altering the immune response (e.g., AD, psoriasis)
- S/E: skin atrophy, telangiectasia, H-P axis suppression

- Mometasone Furoate (crm, ung, lotion)
  - Low systemic absorption and safety profile similar to Hydrocortisone
  - Generally used bid for a few weeks then step down to once or twice a week till resolved

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Topical Therapies

Calcineruin inhibitors (tacrolimus, pimecrolimus)
- Inhibit the production & release of inflammatory cytokines in T cells, mast cells; indicated in AD
- Steroid sparing; may be good alternative
- S/E: stinging & burning of skin, $$
- Tacrolimus 0.03% and 0.1% for facial or eyelid AD and or other inflammatory conditions

Kenneth R. Cohen et al. Pharmacy & Therapeutics 2012
Topical Therapies

Antihistamines

- Diphenhydramine cream: urticaria, insect bites
- Doxepin (Zonalon 5% cream): TCA that exhibits potent H1 and H2 antagonism
  - Double blind study showed pruritus relief in patients with contact dermatitis, nummular eczema and lichen simplex chronicus
- S/E: stinging, drowsiness

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Topical Therapies

**Coolants** (menthol)
- Activate the delta-A nerve fibres
- Create sensation of cold
- 1% Menthol in glaxal lotion to be used once or twice a day.
- Tip: can be refrigerated for further benefit

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Topical Therapies

Anesthetics

- Emla cream (lidocaine-prilocaine)
- Pramox HC (pramoxine HC)
- Hurricane spray (2% Benzocaine spray)

Temporary relief from unpleasant sensations

S/E: dose related CNS excitability
Topical Therapies

Capsaicin

- Desensitizes C sensory nerve fibres and neurolysis at high doses

- Neuropathic, systemic & dermatological pruritus

- S/E: pain, burning & stinging. Caution on open wounds and in elderly

- Capsaicin 0.006%, in white soft parafin

Kenneth R. Cohen et al. Pharmacy & Therapeutics 2012
Topical Therapies

Combination Topicals for Neuropathic pain
(Ion Channel Blockers) “Triple Cream”

Ketamine 5-10%,
Amitriptyline 2-5%
Lidocaine 2.5-5%

Apply during pruritic episode
Systemic Therapies

Oral Steroids

- Used for specific cutaneous illness e.g., Bullous Pemphigoid and other autoimmune illnesses

- Dose ~1mg/kg daily [40 to 60mg daily]

- Monitor SE
Systemic Therapies

Antihistamines

• Diphenhydramine (Benadryl) most effective for treatment of pruritus that is mediated through H1 receptors (e.g., urticaria)
• S/E: Anticholinergic
• Non-sedating H2 receptor blockers e.g. loratadine, fexofenadine not as effect but better safety profile
• Everything else: Sedation is beneficial for QOL but needs to be watched in the elderly

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Tricyclic Antidepressants (TCAs)

Doxepin 3mg, 6mg to 10mg po hs

Both for pruritus and insomnia from pruritus

Anti depressant doses 75mg and up

S/E: (anticholinergic) glaucoma and urinary retention

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Systemic Therapies

Serotonin Receptor Antagonists

- Mirtazapine: indicated for pruritus associated with advanced cancer, cholestasis, hepatic or renal failure
- Paroxetine, fluvoxamine: antipruritic effect demonstrated for AD, lymphoma, solid carcinomas. Even a low dose 5mg Paroxetine may be helpful
- Ondansetron: cholestatic pruritus
- S/E: CNS stimulation, sleep disturbances, agitation, serotonin syndrome

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Systemic Therapies

Opioid antagonists & agonists
- Mu receptor antagonists (naltrexone, naloxone): uremic & cholestatic pruritus, chronic urticaria, AD, opioid-induced pruritus
- Dose Naltrexone 25 to 50mg daily
- Kappa receptor agonists (butorphanol): intractable itching
- S/E: sedation, insomnia, respiratory depression, potential for abuse

Kenneth R. Cohen et al. Pharmacy & Therapeutics 2012
Systemic Therapies

**Neuroleptic Agents** (gabapentin, pregabalin)
- Decrease neuronal transmission; indicated for neurological & uremic pruritus
- Pregabalin 25 mg hs and titrate
- Excreted through the kidneys
- S/E: sedation, depression/suicidality

**Bile-acid sequestrants** (cholestyramine, colestipol)
- Accumulation of bile in nerve and skin cells causes itch
- S/E: bloating, diarrhea, abdominal discomfort

Kenneth R. Cohen et al. Pharmacy & Therapeutics 2012
Other Treatments

Phototherapy
• Narrow-band UBV therapy shown to be effective in uremic pruritus, psoriasis

Psychotherapy
• Study showed that psychological interventions reduced the intensity of itching & scratching in patients with AD

Acupuncture
• Interferes with central and peripheral transmission of itch; limited data available

Kenneth R. Cohen et al. Pharmacy & Therapeutics 2012
<table>
<thead>
<tr>
<th>Pruritus</th>
<th>Possible treatments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type I: Pruritus on diseased skin</strong></td>
<td>Topical and Systemic Steroids</td>
</tr>
<tr>
<td></td>
<td>Topical and Systemic Anti-Histamines</td>
</tr>
<tr>
<td></td>
<td>Topical and Systemic TCAs</td>
</tr>
<tr>
<td></td>
<td>Antibiotics</td>
</tr>
<tr>
<td></td>
<td>Phototherapy</td>
</tr>
<tr>
<td><strong>Type II: Pruritus on non-diseased skin</strong></td>
<td>SSRIs</td>
</tr>
<tr>
<td></td>
<td>Systemic TCAs</td>
</tr>
<tr>
<td></td>
<td>Opioid antagonist [Naltrexone]</td>
</tr>
<tr>
<td></td>
<td>Bile Acid Sequestrants</td>
</tr>
<tr>
<td></td>
<td>Neurolepts [Pregabalin, Gabapentin]</td>
</tr>
<tr>
<td></td>
<td>Psychotherapy</td>
</tr>
<tr>
<td><strong>Type III: Pruritus with chronic scratch lesions</strong></td>
<td>Topical Anaesthetics</td>
</tr>
<tr>
<td></td>
<td>Topical Capsaicin crm</td>
</tr>
<tr>
<td></td>
<td>Triple Cream</td>
</tr>
<tr>
<td></td>
<td>Topical and Systemic TCAs</td>
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<td></td>
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<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td>Acupuncture</td>
</tr>
<tr>
<td></td>
<td>Psychotherapy</td>
</tr>
</tbody>
</table>
Cases
Pruritus in the Elderly

Case 1

- Mr. Tim Antone

68 year old M at the LTC home [Nursing home] post CVA

Nurses complain that he scratches himself incessantly and he has very dry legs. His wife tells you that other than HTN, Cholesterol and obesity, he does not have any other medical problems or skin disorders. On examination: you find that his skin is very dry with some excoriation marks from scratching. You notice that he has a very scaly shin.
TYPE I Pruritus

DDx: Xerosis Cutis (nephropathy), Icthyosis Vulgaris, Xerosis of aging skin

Mx: [STOP from drying and ADD Moisture]

Cut nails very short,

Shower with lukewarm water and non soap based cleanser

Liberal emollient use twice a day daily, Glycerine in Glaxal base

Keratolytic: Urea cream is very scaly
Pruritus in the Elderly

Case 2

Mr. Ahmed Winter

This 77 year-old M presents with bilateral forearm pruritus and rash X 6 months. He has tried various OTC emollients and HC1% cream with minimal benefit. His QOL is very poor; he cannot sleep well at night due to his pruritus.

Your do a biopsy which shows hyperkaratosis and spongiosis with some histiocytes, lymphocytes and eosinophils. Clinical correlation is advised.
TYPE III Pruritus

DDx: Lichen Simplex Chronicus, Nodular Prurigo, eczema, brachioradialis etc

Mx
General measures
Topicals: Steroids, NeP formula, anti-septic (K permangnate saoks)
Clotrimazole if + fungal elements
Doxepin 5 -10mg
Coolants and/or anesthetic sprays prn
Imaging of the C-Spine (physiotherapy)
Salient Points
Determine Etiology

1. Step - Clinical picture only
   The patient can be readily assigned to one group
   Groups of patients
   
   Group I: pruritus on diseased skin
   Group II: pruritus on non-diseased skin
   Group III: chronic scratch lesions

2. Step
   Histological, laboratory and radiological investigation
   Categories of diseases
   
   dermatologic
   systemic
   neurologic
   psychogenic
   mixed
   other

Pruritus in the Elderly
Choose treatment options based on likely etiology.

Set realistic expectations as chronic pruritus is challenging to cure!
References

References


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- FMF app
- Fmf.cfpc.ca

Session #: S346
Session Name: "Help, I think I am going crazy!"
An approach to pruritus in the elderly

YOUR FEEDBACK IS IMPORTANT TO US!