Definition
Pruritus, or itch, is defined as an unpleasant sensation that provokes the desire to scratch.

CLASSIFICATION

Pruritoceptive or Dermal
Originates in diseased skin. (Psora/ Syphilis/ Sycosis)

Neurogenic
Due to molecular or neurophysiologic dysfunction in the nervous system, e.g., cholestasis, opioid-induced pruritus. (Psora)

Neuropathic
Due to nervous system pathology, e.g., multiple sclerosis, Creutzfeldt-Jakob disease. (Psora/ Syphilis)

Psychiatric
Fears e.g. parasitophobia. (Psora)

Pathophysiology
Itch originating from nerves in the skin. The only peripheral tissues from which it can be evoked are skin, mucous membranes, and cornea. Itch sensitivity is not evenly distributed; there are itch points in a spotty distribution.

Neurons
Itch and all other primary sensations are associated with activation of specialized neurons, one for each sensation. There are certain itch-producing mediators in skin.

Histamine
It is released in response to a variety of injurious stimuli. It produces itch by way of the H 1 receptor. Histamine also causes rapid tachyphylaxis with respect to vasodilation and increased vascular permeability.
**Serotonin**
5-hydroxytryptamine is an amine, present in platelets, can cause itching in skin through histamine release from dermal mast cells.

**Endopeptidases**
Trypsin or papain cause itch. Trypsin is an important component of dermal mast cells, and is secreted upon mast cell activation.

**Neuropeptides**
Substance P, localized in C neuron terminals causes itching both by a direct action.

**Eicosanoids**
Arachidonic acid transformation products (prostaglandins, leukotrienes, and other hydroxy fatty acids) possess powerful pro-inflammatory properties and enhance itching.

**Types**

**Renal**
Pruritus is one of the most important and distressing symptom of chronic renal failure. Due to intense scratching, secondary skin lesions may develop, such as nummular eczema, prurigo nodularis, or lichenified plaques. (Psora/ Syphilis/ Sycosis)- staph

**Cholestasis**
Stressful constant pruritus associated with biliary obstruction starts with an acral distribution and becomes generalized due to both bile salts in the skin and elevated levels of opioid peptides. (Psora)- Dol. Hep. myric. pic-ac. ran-b. thyr.

**Endocrine disease**
Obstinate itching happens in thyrotoxicosis, due to increased blood flow, and in hypothyroidism (NAT-M. GRAPH. LYC. MERC. PSOR. SEP. Alum. Calc. Con. Gel. Iod. Kali-c. Nux-v. cortico. hist.) due to excessive skin dryness (cortico. hep. sil. sulph.). It can be an expression of diabetic neuropathy (Cephd-i.) (Psora)

**Hematologic disease**

**HIV infection**
Pruritus is a chief symptom of HIV infection as pruritus sine materia (Itch without eruptions) (agar. ALUM. alum-sil. ARS. bar-act. bar-c. calc-sil. carc. cist. clem. cupr. Dol. fago. gal-ac. galeoc-c-h.
Senile pruritus
This is common in the aged but no cause is found. Desiccation of the skin may be one cause. Occasionally pruritus may also be aggravated by water contact. (Psora) (alum. arg-n. ars. bar-act. bar-c. con. dol. dulc. fago. fl-ac. kreos. mag-p. merc. Mez. nat-sil. olnd. op. sul-ac. sulph. urt-u.)

Psychiatric disease
Localized pruritus is often a common manifestation of chronic anxiety, and persistent rubbing of the localized area will result in lichenification. Parasitophobia is a more serious problem which has sensations of insects crawling on skin. (Psora) (alum. am-c. ars. bov. coca-c. kali-c. mur-ac. Nux-v. phos. ran-s. sil.)

Aquagenic pruritus
This pruritus is aggravated by contact with water of any temperature. It lasts up to 1 hour, and there are no visible signs on the skin. This condition must be distinguished from “bath-itch” in polycythemia vera or water-induced senile pruritus. The causes are unknown. Since no lesions can be found, such patients are often considered as neurotic. (Psora) (clem. Fago. olib-sac. tub.)

Notalgia paresthetica
This is a common localized itch usually in the interscapular area. The sensations are itch with paresthesia. It is probably a neuropathic itch due to the entrapment of spinal nerves as they come out through the muscle fascias of the back. (Causa occasionalis/ Psora) (all-s. alum. am-m. arg-met. calc. calc-s. caust. chinin-s. choc. cortico. cortiso. cystein-l. dios. Hipp. lap-la. laur. mag-c. mag-m. mosch. positr. rat. ruta stront-c. Zinc.)

Causes

Metabolic, endocrine conditions
Hyperthyroidism
Hypothyroidism
Pregnancy

Malignant neoplasms
Hodgkin disease
Lymphoma, myeloid and lymphatic leukemia,
Multiple myeloma
Myelodysplasia
Rarely in other cancers

Drug ingestion
Aspirin, alcohol, dextran, polymyxin B, morphine, codeine, scopolamine, D-tubocurarine etc.
Drug sensitivities

Infestations
Ascariasis
Hookworm
Onchocerciasis
Pediculosis
Scabies

Renal disease
Renal failure

Hematologic disease
Iron deficiency
Paraproteinemia
Polycythemia vera

Hepatic disease
Obstructive biliary disease
Pregnancy – due to intrahepatic cholestasis

Psychogenic states

Transitory
Periods of emotional stress

Persistent
Anorexia nervosa
Delusions of parasitosis- parasitophobia
Neurotic excoriations
Psychogenic pruritus

Latent dermatoses and miscellaneous conditions
Aquagenic pruritus
Atopic dermatitis (without skin lesions)
Brachioradial pruritus
Bullous pemphigoid (without skin lesions)
Dermatitis herpetiformis (without skin lesions)
Factitious urticaria (dermographism)
Fibre glass exposure
Notalgia paresthetica
Senile pruritus
Xerosis e.g. winter itch

Treatment

Skin - itching
References

Radar 10

Encyclopedia Homoeopathica

Chapter 102. Pathophysiology and Clinical Aspects of Pruritus Dermatology

Section 36. Generalized Pruritus Without Skin Lesions (Pruritus Sine Materia) Fitzpatrick's Color Atlas and Synopsis of Clinical Dermatology

Pruritus CURRENT Medical Dx & Tx > Chapter 8. Ear, Nose, & Throat Disorders > Diseases of the Ear > Diseases of the Ear Canal

Pruritus (Itching) CURRENT Medical Dx & Tx > Chapter 6. Dermatologic Disorders > Common Dermatoses

The Treatment of Pruritus Goodman & Gilman's The Pharmacological Basis of Therapeutics, 12e > Chapter 65. Dermatological Pharmacology

Pruritus Clinician's Pocket Reference > Chapter 3. Differential Diagnosis: Symptoms, Signs, and Conditions
Pruritus and Pruritic Eruptions of Human Immunodeficiency Virus Disease

Dermatology > Chapter 198. Cutaneous Manifestations of Human Immunodeficiency Virus Disease > Cutaneous Disorders Occurring in Human Immunodeficiency Virus Disease

Pruritus

Harrison's Online > Chapter 55. Cutaneous Drug Reactions > Clinical Presentation of Cutaneous Drug Reactions > Nonimmune Cutaneous Reactions

Excoriation

Williams Hematology, 8e > Chapter 1. Initial Approach to the Patient: History and Physical Examination > Physical Examination > Skin

Pruritus CURRENT Diagnosis & Treatment: Gastroenterology, Hepatology, & Endoscopy, 2e > Chapter 51. Primary Biliary Cirrhosis > Treatment > Secondary Therapy

Pruritus Hazzard's Geriatric Medicine and Gerontology, 6e > Chapter 87. End-Stage Renal Disease > Indications for Initiation of Dialysis

Histamine (see Chapter 32) is a potent vasodilator, bronchial smooth muscle constrictor, and... Goodan & Gilman's The Pharmacological Basis of Therapeutics, 12e > Chapter 65. Dermatological Pharmacology > Antihistamines

H1 antagonists have a place in the treatment of pruritus. Some relief may be obtained in... Goodan & Gilman's The Pharmacological Basis of Therapeutics, 12e > Chapter 32. Histamine, Bradykinin, and Their Antagonists > H1 Receptor Antagonists > Therapeutic Uses > Allergic Diseases
Itch is a distinctive sensation that can be separated on clinical and neurophysiologic... Adams and Victor's Neurology > Chapter 9. Other Somatic Sensation > Anatomic and Physiologic Considerations > Sensory Pathways > Sensory Nerves

Cholestatic diseases are often accompanied by pruritus—a source of severe discomfort in some... CURRENT Diagnosis & Treatment: Surgery, 13e > Chapter 25. Biliary Tract > Jaundice > History

Clinical Box 8–1 Ganong's Review of Medical Physiology, 24e > Chapter 8. Somatosensory Neurotransmission: Touch, Pain, and Temperature > Sense Receptors & Sense Organs > Nociceptors