

Dermatologic diseases of the external ear

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2021

The cartilaginous canal

- Hair cells
- Sebaceous (lipid-producing) glands
- Apocrine (ceruminous) glands

apopilosebaceous unit

The osseous canal

- Neither glands nor hair follicles

Cerumen

- A result of the secretions that are produced by the sebaceous and apocrine glands admixed with desquamated epithelial cells

Auricle

- Susceptible to environmental influences and trauma
- Ultraviolet light and preneoplastic and neoplastic skin lesion
- Aesthetical concerns

Ear canal

- Instrumentation and excessive cleansing of the canal predisposes an individual to infection in two ways.
 - Abrasion of the canal skin
 - Disruption of protective barrier

Normal flora of the EAC

- Staphylococcus species (S auricularis, S epidermidis, and S capitis)
- Corynebacterium species (Turicella otitidis and C auris)
- Streptococci and Enterococci

Dermatologic diseases of the external ear

- Infectious
- Tumoral
- Noninfectious inflammatory

Infectious dermatologic diseases

- Acute diffuse otitis externa
- Chronic otitis externa
- Furunculosis (acute localized otitis externa)
- Otomycosis
- Lymphocytoma
- Auricular chondritis and perichondritis
- Lupus vulgaris
- Herpes zoster oticus

Tumoral dermatologic diseases (benign)

- Seborrheic keratosis
- Granuloma fissuratum
- Keloid
- Chondrodermatitis nodularis
helicis chronicus
- Melanocytic nevus
- Blue nevus
- Cylindroma
- Benign adnexal tumors
- Auricular appendages
- Osler-Weber-Rendu disease

Tumoral dermatologic diseases (premalignant)

- Actinic keratoses
- Cutaneous horn
- Lentigo maligna

Tumoral dermatologic diseases (malignant)

- Basal cell carcinoma
- Bowen's disease
- Squamous cell carcinoma
- Melanoma
- Malignant adnexal tumors

Noninfectious inflammatory dermatologic diseases

- Cold injury of the external ear
- Burn injury of the external ear
- Seborrheic dermatitis
- Contact dermatitis
- Atopic dermatitis
- Acne
- Lupus erythematosus
- Psoriasis

Cold injury of the external ear (frostbite)

- Among soldiers
- The tip of the nose and the pinna are commonly affected with frostnip
- Painful swelling
- Erythematous discoloration



Cold injury of the external ear (frostbite)

- Treatment
- Gradual rewarming with moist cotton pledgets
- Silver nitrate
- Systemic antibiotics
- Anti-inflammatory drugs
- Hyperbaric oxygen
- Vasodilators
- Surgical debridement (delay)
- Don't rupture the bullae



Burn injury of the external ear

- The auricle is covered by skin but has no underlying subcutaneous tissue.
- This lack of subcutaneous tissue leaves the perichondrium and the cartilage with little protection.
- Chondritis is the most common early complication after a burn of the auricle.

Burn injury of the external ear

- Conservative treatment
- Silver sulfadiazine
- Systemic antibiotics
- Avoidance of any pressure to the area
- debridement and grafting of third-degree burns areas



Burn injury of the external ear

- Topical mafenide acetate cream
- Exposed cartilage must be covered with vascularized tissue.

Seborrheic dermatitis

- Erythematous plaques or patches
- from mild dandruff to dense, diffuse, adherent scale
- Areas of the head and trunk where sebaceous glands are prominent

Scalp

Nasolabial folds

Eyebrows

Ears



Seborrheic dermatitis

- Etiology is unknown
- It is associated with genetic, environmental, and general health factors as well as with lipophilic *Malassezia* yeasts.



Seborrheic dermatitis

- Distribution is symmetric.
- The condition commonly presents in hairy areas of the head (ie, the scalp, scalp margin, eyebrows, eyelashes, beard, and mustache); on the forehead; in the external ear canals; in the nasolabial folds; and in the body folds.



Seborrheic dermatitis

- Lesions typically worsen during the winter, whereas sun exposure during the warmer months appears to improve the clinical appearance of the disease.
- Scratching and emotional stress tend to aggravate the condition.



Seborrheic dermatitis

- The prevalence of seborrheic dermatitis

- Immunocompetent population 1% to 3%
- Immunocompromised population (AIDS) more

Seborrheic dermatitis

- More common among men than women, probably because androgens stimulate sebum production.
- The condition initially appears during the teenage years or the 20s.

Seborrheic dermatitis

- The etiology
 1. sebaceous gland secretions
 2. microfloral metabolism
 3. individual susceptibility
- Lipid-dependent *Malassezia* yeasts are causal factors in the development of seborrheic dermatitis

Seborrheic dermatitis

- *Malassezia globosa* and *Malassezia restricta* are two main organisms on the scalp of individuals with seborrheic dermatitis or dandruff.

Seborrheic dermatitis

- The primary goal of therapy symptom control
- There is no cure for the disease.
 - Mild corticosteroids
 - Antifungal agents
 - Immunomodulators
 - Medicated shampoos

Contact dermatitis

- Irritant or Allergic
- The pinna & The external auditory canal
- Allergic forms usually present acutely with erythematous, pruritic, edematous, and exudative lesions, whereas contact dermatitis often has a more insidious onset with lichenification.



Contact dermatitis

- Dose dependence is typical with irritant contact dermatitis.
- Allergic contact dermatitis is less dose dependent.
- Allergic contact dermatitis
 - any local irritant, including topical anti-infective agents, anesthetics and topical preparations.
 - Neomycin, Hearing aids, Rubber earplugs

Contact dermatitis

- Removal of the irritant or allergen
- Topical steroids
- An acidifying agent
- Systemic steroids and antihistamines for severe allergic reactions

Atopic dermatitis

- A chronic and intensely pruritic reaction to allergens or stress that is also known as eczema.
- Erythema, small papules, excoriation
- A personal or family history of atopy of the respiratory tract or eyes
- The typical onset occurs during childhood.



Atopic dermatitis

- Moisturizers and gentle soaps
- Topical corticosteroids
- Systemic antihistamines

Acne

- Sebaceous follicles can develop comedones, pustules, acne lesions
- Treatment

Topical therapy

Open comedones

Benzoyl peroxide

Lupus erythematosus



- A multisystem autoimmune disease
- Ear canal involvement is commonly associated with the discoid form of the disease.
- Epidermal atrophy causes the skin to have a shiny surface and telangiectasia, usually in association with erythema, scaling, and hypopigmentation.

Lupus erythematosus

- Two parts
 1. induction therapy to control disease activity
 2. Maintenance therapy
- Immunosuppressants are the drugs of choice for both parts of treatment.

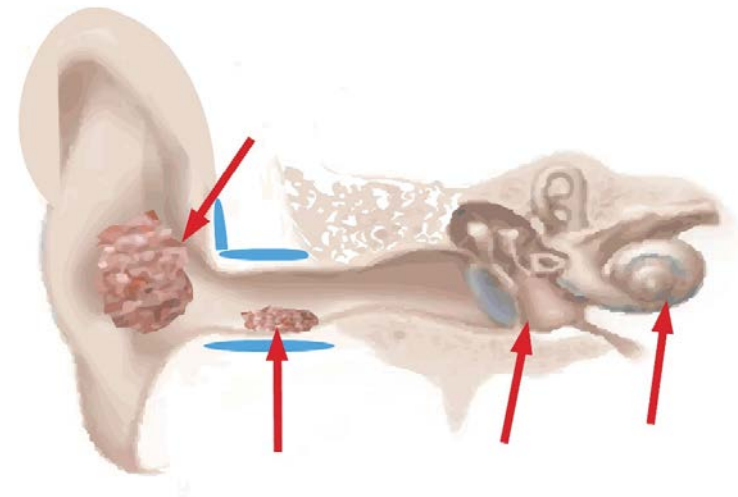
Psoriasis

- A papulosquamous skin condition
- Positive family history
- Triggers
 - Trauma
 - Infection
 - Stress
 - Medications (beta-blockers, lithium, angiotensin-converting enzyme inhibitors)



Psoriasis

- In the external ear, the involvement of the conchal bowl is commonly seen.
- Classic psoriatic lesions:
 - well-demarcated, erythematous plaques with a “silvery scale.”
 - If the superficial scale is removed, pinpoint hemorrhage can be seen (Auspitz’s sign).
- Main finding: itching



Psoriasis

- Treatments
 - Steroid solutions
 - Bland emollients
 - Moisturizers with up to 10% urea
 - Topical vitamin D3 derivatives

Thank You