به نام خدا

premalignant skin lesions
&
Skin cancers

Actinic Keratosis

- Is a perimalignant skin dx
- Stable hyperKeratotic Lesion in old age persons with have long term Sun Exposure
- littleTrend to conversion to SCC (1/1000)

Actinic Keratosis
etiology

- UVR (major factor)
- Ionazing & infra red radiation
- Long term exposure to tar & coal

Actinic Keratosis
Clinical Manifestation

- Macule,Papule & Plaque Poorly Define
- Adhessive Yellow or brown Scale
- Rough Surface
- Pigmentation,Atrophy & Telangiectasia Due to Sunlight
- Lesions = often multiple & asymptomatic
- Most Common Area= in Sun Expose Sites
  - face
  - Back of The Hand
  - Ears esp in men
  - Lower Lip

Actinic Keratosis importance

- Risk of malignancy
- +/- biomarker of Excessive Sun Expose
- risk of NMSK

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Actinic Cheilitis

Actinic Cheilitis

A.K
Treatment

- Avoidance of sunlight (+/- improvement)
- Crayothrapy
- Couter&Curettage
- Excision
- 5-FU Topical(Cytotoxic Agent)
- Imiquimod Topical
- Co2 Laser (for A.Cheilitis)

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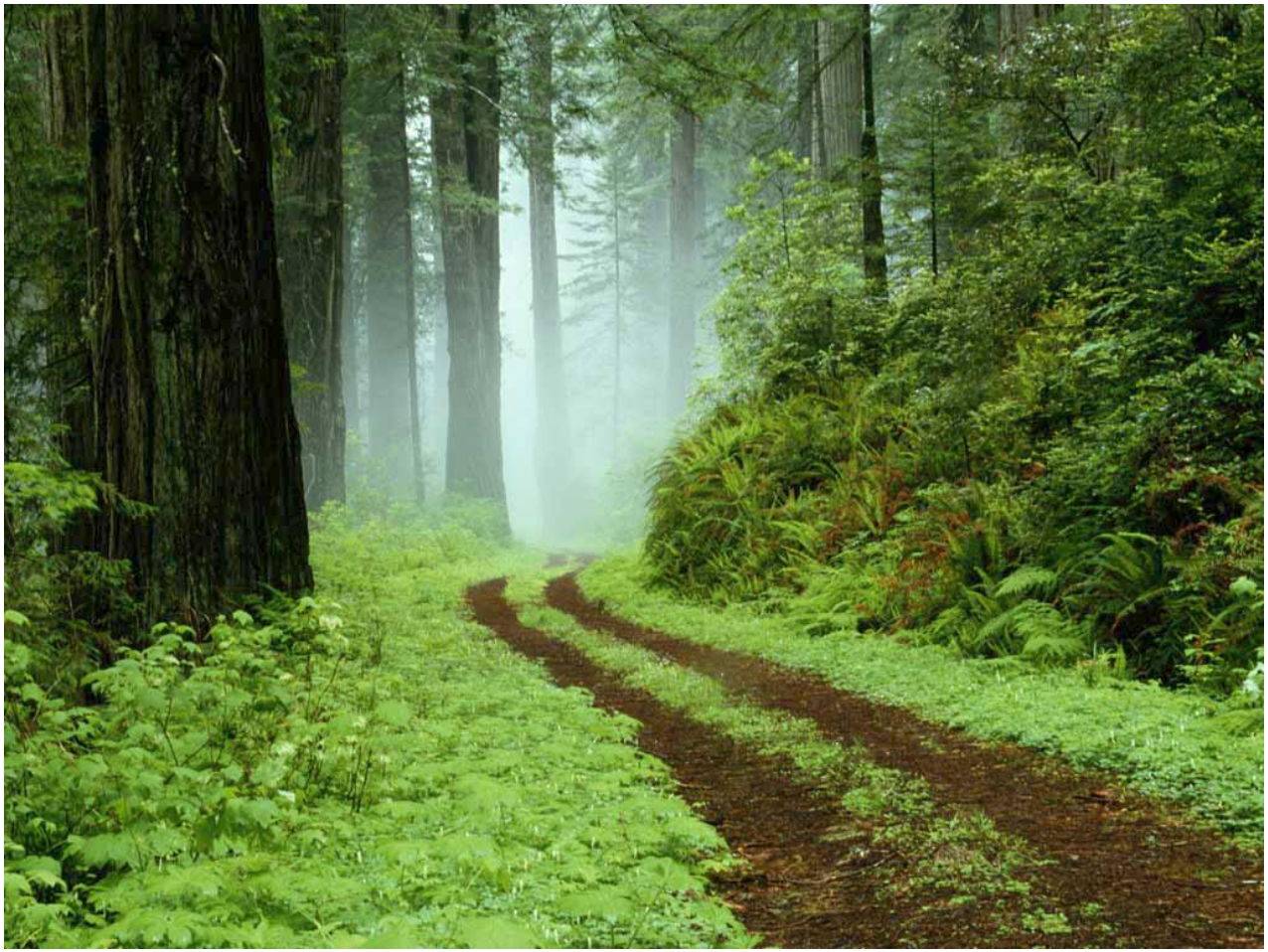


Bowen Disease

- A premaignant skin dx
- A Form of SCC insitu
- Erythematous scaly or crusted plaques
- **Etiology :**
- UVR (major factor)
- Arsenic (unsun Expose)
- { HPV (12,13,34) }

Bowen Disease clinic

- Solitary plaque (crustate or scaly)
- Often on leg of elderly women
- asymptomatic
- Well Define
- Erythematous base
- Slightly Raised
- easy Detached Scale without bleeding
- DDx :
- Superficial BCC, LSC, AK & psoriasis

Bowen Disease

Bowen Disease

Bowen Disease

Bowen Disease

Bowen Disease

Bowen Treatment

- Destructive Therapy :
  - curettage & cautery
  - cryotherapy
- Excisional Surgery
- Topical 5- FU (5%)
- radiotherapy
- Recurrences Are Common
  - So Fallow Up is Necessary

In the name of God

Skin cancers

NMSC

NMSC

- NMSC is the most common cancer in humans
- Approximately 75-80% of nonmelanoma skin cancers are BCC, and 20-25% are SCC .
- **in Iran** : **first** common cancer in men & **2nd** in women
- **23 rd** cancer–related deaths in men & **29 rd** in women
- **in Iran** : in all of skin cancer
- - BCC = **57%**
- - SCC = **13%**
- - Melanoma = **6%**

Basal cell carcinoma

introduction

- BCC = basalioma = basocellular carcinoma = rodent ulcer
- typically appear on sun-exposed skin, are slow growing, arises from basal cells
- Tumor size can vary from a few millimeters to several centimeters in diameter
- Basal cells invade the dermis but seldom invade other parts of the body and rarely metastasize.
- Local invasion is important esp. on eye, eyelids & septum of the nose … tissue destruction … rarely brain & mening involvement and even death.

Basal cell carcinoma

- **Epidemiology** :
- Each year **one million** BCC are diagnosed In **USA**
- the **most common** skin cancer in humans
- More common in **white** people & **men**
- **Age** = in 80% > 50 y/o
- More common in **light skin** , blond hair & blue eyes
- has a high frequency in who have a long history of unprotected exposure
- **Pathology** :
- Malignant proliferation of keratinocyte (basaloid type) that progress deep & laterally, gradually
- some degree inflammatory cell infiltration

BCC – Etiology

- Exposure to sunlight (esp. **UVB**)
- Ionizing radiation exposure (x-ray therapy for tinea)
- Immunosuppression (organ transplant)
- Site of burn scar, trauma & vaccination
- { Gene mutations (PTCH1 gen)
- Arsenic exposure through ingestion
- Xeroderma pigmentosum
- Nevoid BCC syndrome (Gorlin syndrome)
- Bazex syndrome
- Personal and family hx of previous NMSC (BCC or SCC) }

Mortality/Morbidity

- It is rarely metastatic
- The incidence of metastatic is estimated at less than 0.1%.
- The most common sites of metastasis are the **lymph nodes**, the **lungs**, and the **bones**.
- Typically, basal cell tumors enlarge slowly and tend to be locally destructive
- Periorbital tumors can invade the orbit, leading to **blindness**, if diagnosis and treatment are delayed.
- Perineural invasion can occur and leading to **loss of nerve function.**

Physical exam

- usually appears as a flat, firm, pale area that is small, raised, pink or red, translucent, shiny,pearly and the area may bleed following minor injury
- may have one or more visible and irregular blood vessels (telangiectasia)
- an ulcerative area in the center that often is pigmented
- The lesion grows slowly, is not painful, and does not itch

BCC - Clinical presentation

- Often present on head & neck (85%)
- Most common site = nose (25-30%)
- Also seen in unexposed area (genital & breast)
- Rarely in dorsal of the hands (**in spite of severe expose**)

Clinical varriants

- Atleast there are **26** types of BCC
- **The most important types :**
- **- Nodular BCC**
- - Cystic BCC
- - Morpheaform (sclerosing) BCC
- - Superficial BCC
- - basosquamous BCC

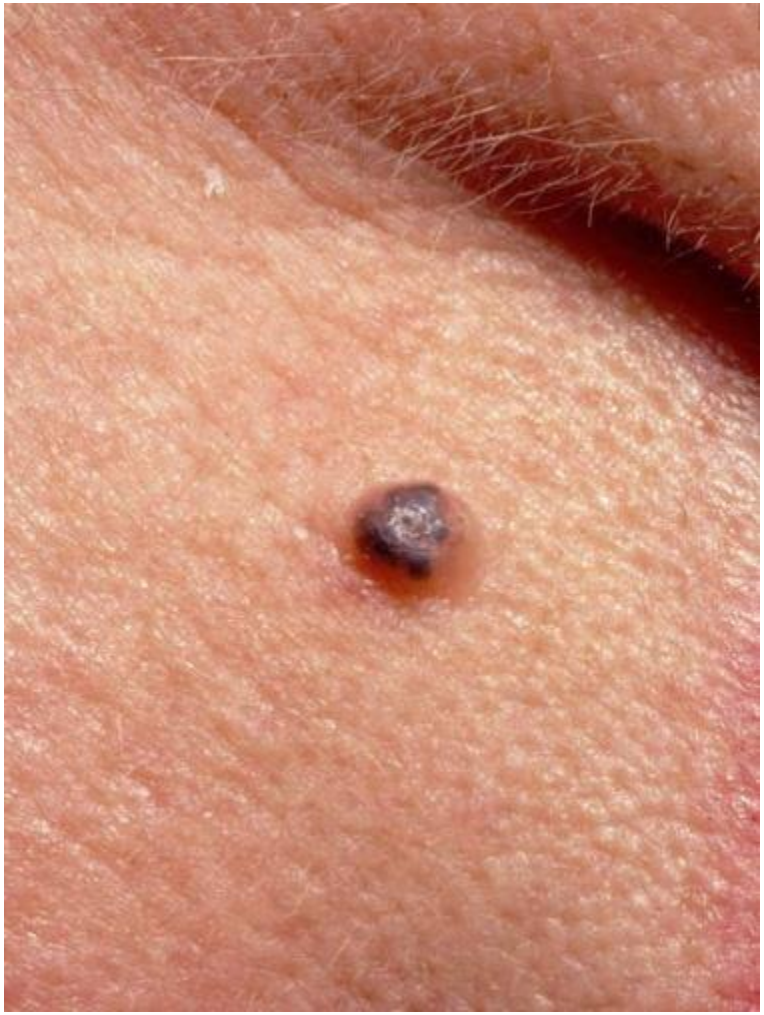
Clinical presentation

- **Nodular BCC**
  - the **most common** type (60%)
  - usually presents as a round, pearly, flesh-colored & shiny papule or nodule with telangiectasia
  - As it enlarges, it frequently ulcerates centrally, leaving a raised, pearly border with telangiectasia
  - Pigmented form is subtype of nodular (maybe mis diagnose with melanoma)
  - DDs with seb. Hyperplasia, molluscum cont. & scc

Nodular BCC

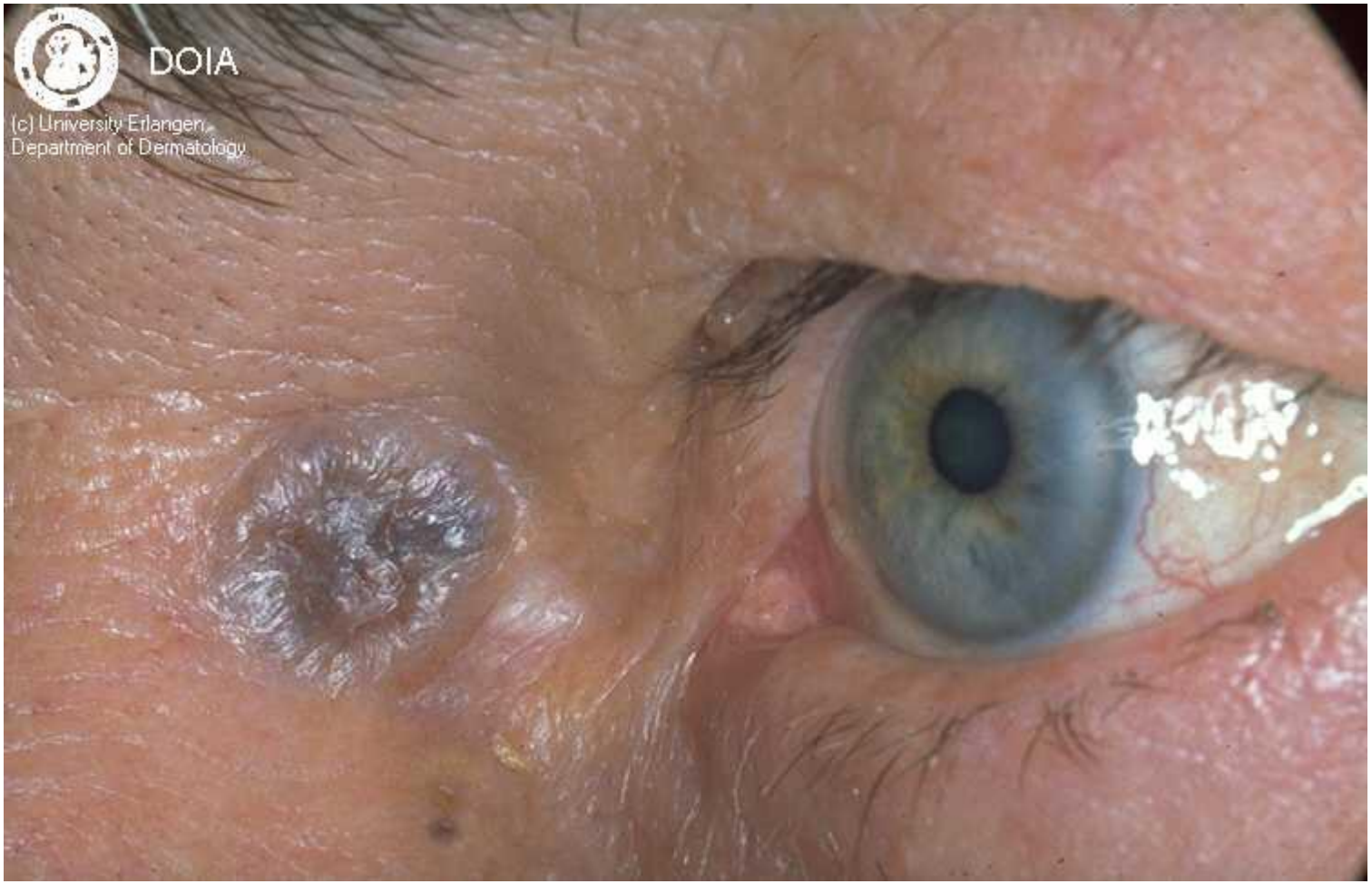
Nodular BCC

Pigmented BCC



Pigmented BCC

Pigmented BCC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Clinical presentation

- **Cystic BCC**
  - An uncommon variant
  - is often indistinguishable from nodular BCC clinically
  - Typically, a bluish-gray cyst-like lesion is observed. The cystic center of these tumors is filled with clear **mucin** that has a **gelatin-like** consistency


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Clinical presentation

- **Morpheaform (sclerosing) BCC**
  - This form is clinically resembles to localized sclerodermia or scar , flat or atrophic poorly define indurated plaque
  - The color is red or white
  - { tumor cells induce a proliferation of fibroblasts within the dermis and an increased collagen deposition (sclerosis).
  - This is the most difficult type to diagnose
  - treatment is difficult, and the clinical margins are difficult to distinguish.
  - Mohs surgery is the treatment of choice for this type }

Morpheaform (sclerosing) BCC

Morpheaform (sclerosing) BCC


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Clinical presentation

- **Superficial BCC**
  - is often **multiple**
  - most often developing on the upper trunk or limbs but maybe on head & neck.
  - grows slowly and appears clinically as an erythematous, well-circumscribed patch or plaque, often with a whitish scale
  - **DDs** = eczema, psoriasis, bowen & AK

Superficial BCC

Superficial BCC

Clinical presentation

- **basosquamous**
  - A mixed of BCC & SCC pathologically
  - Biologically, more similar to SCC
  - Risk of metastasis = **10%**

Treatment

- **Factors that effect on mode of Tx :**
- size & location of tumor
- clinical type of tumor
- border of tumor (clear or not)
- age of pt.
- recurrency
- **Methods:**
- **-** surgery
- - radiotherapy
- - local dest. Tx (crayo, curtage, cuter & lasar)
- - photodynamic therapy
- - intralesional of INF*α*-2*B*
- - topical imiquimod

Treatment

Low risk BCC :

- Couter&Curettage
- Crayothrapy

For many of nodular types (D < 2 cm):

- conventional excision with 4-5 mm safe margine

Treatment = mohs surgery indication

- { BCC at high risk sites :
- nasolabial fold , periocular , nose
- Morphoeic BCC
- Infiltrative BCC
- Recurrent BCC }

CUTANEOUS SCC

SCC

- A malignant tumor of epidermal keratinocytes
- **Epidemiology :**
- Often in white people
- Often in individual with high sun exposure
- Although SCC is not common in the black race, but it's the most common skin cancer in them.
- SCC/BCC in white people = ¼
- Prevalence increases with aging
- **Pathology :**
- tumor mass cell originated from epiderm with up growth (exophytic) & down growth (endophytic)
- with malignant proliferation & differentiation to squamous cell .

SCC- etiology

- **UVR** esp. in white people
- **Ionizing radiation**.
- **genodermatoses**, such as oculocutaneous albinism & XP
- **Immunosuppression** (organ transplant)
- **Burn scar** & **chronic ulcers** , fistula, sinus tract , …
- **HPV** { 6 & 11 are in patients with tumors of the genitalia and type 16 in those with periungual tumors }.
- Certain chronic inflammatory disorders (DLE, LSA, LP, dystrophic EB, and lupus vulgaris).
- Premalignant dx (AK, bowen, …)

SCC- clinics

- Scc often does not present in intact skin & often there are photodamage signs , like, solar elastosis (hyperkeratosis , irregular pigmentations & telangiectasia) in skin.
- Forms :
- Plaque, noular, verrucous , ulcerated, fissur or erosion, cauliflower-like, pigmented & angioform lesions
- Induration = first clinical guide to Dx of malignancy
- -The lesions are firm in palpation
- -The lesions are poorly define
- -There are perilesional inflammation

SCC- clinics

- - the border of tumor is irregular
- - on mobile sites (lip & genital) the caractristic sign = a persistant erosion or ulcer with frequently bleeding
- -**most common sites :**
  high exposuer area ,back of hands & forearm, upper face, lower lip & pinna (esp. in men)
- Maybe regional lymphadenopathy, due to infection or metastasis
- metastatic LAP : more firm , irregular border & non-mobile


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SCC-Treatment

- Usually is surgery & in some cases radiotherapy
- Criaria for selection of therapeutic modality

  size of tumor

  site of tumor

  age of pt.

  etiologic factor

  histopathology

SCC-Treatment

- { tumor < 1 cm & slow growth & in sun expouse area & well differentiated : destractive therapy (curettage – cryo..)
- tumor = 1-2 cm & slow growth & in sun expouse area & well differentiated : excision with **4mm** safe margin
- larger & deeper tumors = more extensive
- For tumors that occur at anatomical sites associated with a high risk of recurrence or that are larger than 2 cm: **6-mm** margin is Recommended
- Mohs' surgery for patients with high-risk tumors.}

SCC-Prognosis

- { Most patients with primary cutaneous SCC have an excellent prognosis.
- For those with metastatic disease, however, the long-term prognosis is extremely poor .Ten-year survival rates are less than 20 percent for patients with regional lymph-node involvement and less than 10 percent for patients with distant metastases.
- If metastasis does occur, regional lymph nodes are involved in approximately 85 percent of cases; approximately 15 percent of cases involve distant sites, including the lungs, liver, brain, skin, and bone. }