MALIGNANT SKIN TUMORS

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1) Non-Melanoma Skin Cancers

- **1. BASAL CELL CARCINOMA (Rodent Ulcer)**
  - *most common form of skin cancer*
  - Pathophysiology • malignant proliferation of basal keratinocytes of the epidermis
  - Most common site: Face
  - *middle-aged or elderly.*
  - Lesions invade locally but **never metastasize.**
Causes:

1. Prolonged sun exposure is the main factor
2. They may also occur in scars caused by X-rays, vaccination or trauma.
3. Photosensitizing pitch, tar and oils can act as co-carcinogens* with ultraviolet radiation.
4. Previous treatment with arsenic predisposes to multiple BCCs
5. Gorlin syndrome multiple BCCs

Nevoid basal-cell carcinoma syndrome (NBCCS) genetic disorder inherited as an autosomal dominant trait, involves defects within multiple body systems such as the skin, nervous system, eyes, endocrine system, and bones with an extraordinary predisposition to BCC
■ **Subtypes:**

■ there are 5 types of BCC:

■ 1. **Nodulo-ulcerative.** (typical) >> commonest type

■ presents as a skin-coloured papule with telangectasia, rolled edge, +/-central ulceration +/-pigmentation

■ Fine telangiectatic vessels often run across the tumor’s surface.

*Fig. 18.30* Basal cell carcinoma with marked telangiectasia and ulceration.
2. Cystic

3. Cicatricial (morphoeic): the lesion may look like an enlarging scar, flesh/yellowish-coloured, shiny papule/plaque with indistinct borders, indurated

4. Superficial (multicentric) >> least aggressive subtype

5. Pigmented.
Treatment:

- It depends on the type of tumor, its site and the age and general health of the patient.
- Excision, with 0.5 cm of surrounding normal skin. (Mohs for high risk lesions)
- Alternative is radiotherapy

Superficial subtype – can treat with cryotherapy, PDT, imiquimod

The 5-year cure rate for all types of BCCs is over 95%, but regular follow-up is necessary to detect local recurrences.
2) SQUAMOUS CELL CARCINOMA

- Malignant tumor of keratinocytes
- This is a common rapidly growing tumor
- Onset is often over months
- Present as rapidly growing scaly nodules +/- ulceration
- Risk of metastasis
Risk factors

- 1. long term ultraviolet radiation
- 2. Other carcinogens include pitch, tar, mineral oils and inorganic materials
- 3. Certain rare genetic disorders such as xeroderma pigmentosum.
- 4. organ transplant (immunosuppression) // in organ transplant recipients SCC is most common cutaneous malignancy,
- 5. may occur in previous scar (SCC more commonly than BCC)
Clinical presentation:

- SCCs are common on the lower lip and in the mouth.
- sites: face, ears, scalp, forearms, dorsum of hands
- exophytic (grows outward) lesion, may present as a cutaneous horn
SCC may be primary = de novo, or secondary arise as thickenings in an *actinic keratosis*.

- Treatment is with surgical excision
- with primary closure, skin flaps or grafting
- Patients require follow-up
- (more aggressive treatment than BCC)

*actinic keratosis: rough, scaly patch on the skin, develops due to years of sun exposure.*
Malignant Melanoma

- Pathophysiology >> malignant neoplasm of pigment forming cells (melanocytes and nevus cells)
- **less** melanin in skin make person at increasing risk of skin damage by UV light

- **It’s the most common metastatic skin tumor** , often lethal.

- The primary cause of melanoma is ultraviolet light (UV) exposure in those with low levels of skin pigment.

- Rising incidence in the UK/USA (highest incidence among white people)
Risk factors

- 1. Genetic (Family history of melanoma) CDKN2A // 10-15% of melanomas are familial.
- 2. Sunlight / sunburn
- 3. Pre-existing melanocytic naevi.
- 4. Fair skin types / red hair
- 5. Increasing Age
- 6. Giant congenital melanocytic nevi
- Familial dysplastic nevus syndrome!
Clinical features

- **changing mole**: is most common presentation
- most common site is the **Back and Legs**• Advanced lesion present with **itching** and **bleeding**
Clinical diagnosis:

- Change in color or size of an existing lesion, itching, ulceration.
- New pigmented lesion in an adult.

Mole Assessment: malignant characteristics of a mole: “ABCDE” mnemonic

- A – Asymmetry • B – Border (Irregular)
- C – Colour (>3) • D – Diameter (>6mm)
- E – Elevation (new)
Asymmetry
The two halves of the mole look different

Border
The border is poorly defined or irregular

Colour
The colour varies from one area to another

Diameter
The mole is bigger than a pencil eraser
The ABCDEs of Detecting Melanoma

A: Asymmetry
B: Border
C: Color
D: Diameter
E: Evolving

NORMAL
A: Symmetrical
B: Borders Are Even
C: One Color
D: Smaller Than 1/4 Inch
E: Ordinary Mole

MELANOMA
A: Asymmetrical
B: Borders Are Uneven
C: Multiple Colors
D: Larger Than 1/4 Inch
E: Changing in Size, Shape and Color
There are four main types of malignant melanoma:

- 1. Lentigo maligna melanoma in elderly 15% of all melanomas)
- 2. Superficial spreading melanoma is the most common type. (60-70% of all melanomas)
- 3. Acral lentiginous melanoma occurs on the palms and soles (5% of all melanomas)
- 4. Nodular melanoma. It is the most rapidly growing and aggressive type. (30% of all melanomas)
- **Sun protection is key in prevention** (sun screen, clothing, sun avoidance)

- **Treatment:**
  - 1. Surgical excision ( +/- Sentinel node biopsy (**SNB**))
Thank you