

Malignant Melanoma



Malignant Melanoma

Malignant tumor of epidermal melanocytes

Makes 4% of all Skin cancers

80% of all Skin cancer deaths

Risk factors

- Fair skin
- Freckles
- Red hair
- Number of Naevi
- Sun-exposure
- Family history of melanoma
- Genetic mutations - Autosomal dominant inheritance with incomplete penetrance

Malignant Melanoma

Clinical Features

- Affects any age, site, & both genders
- Typically, affects the leg in females, and back in males
- Rare before puberty
- Irregular, dark lesions with rough surface
- Early lesions are in-situ and pre-invasive, before becoming invasive melanoma with metastatic potential
- Change in naevi, development of new lesions be assessed to exclude malignancy
- **Dermatoscope** is invaluable tool



Clinical Criteria

1. Glasgow 7-point checklist

Glasgow 7-point checklist (refer if ≥ 3 points, or with 1 point if suspicious)

Major (2 pts each)	Minor (1 pt each)
<ul style="list-style-type: none">• Change in size• Change in shape• Change in colour	<ul style="list-style-type: none">• Inflammation• Sensory change• Diameter $>7\text{mm}$ (unless growth is in the vertical plane)• Crusting or bleeding

2. ABCDE criteria

- Asymmetry
- Border – irregular
- Color - Non-uniform,
- Diameter $>7\text{mm}$
- Elevation

Malignant Melanoma

Types

1. Melanoma without metastatic potential

- Melanoma in situ
- Lentigo maligna

2. Melanoma with metastatic potential

- Superficial spreading melanoma
- Nodular melanoma
- Acral lentiginous melanoma
- Lentigo maligna melanoma
- Subungual melanoma

Malignant Melanoma

Types

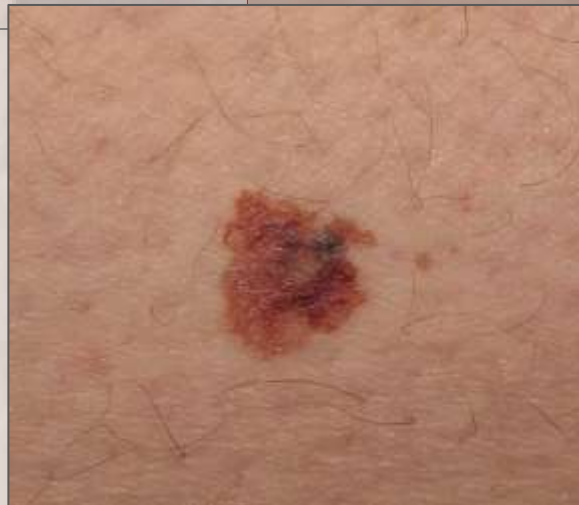
1. Melanoma without metastatic potential

- Melanoma in situ
- Lentigo maligna

- Most common type
- 'Radial growth' - Grow horizontally across epidermal & superficial epidermal planes
- Does not reach lymphatics and blood vessels

2. Melanoma with metastatic potential

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- Occurs in fifth & sixth decades, in men
- Found on trunk
- Greater metastatic risk & has poorer prognosis
- May develop de-novo, or from a pre-existing naevus or superficial spreading melanoma
- Growth is in the vertical plane & tends to be dome shaped
- May present as a rapidly growing nodule, may bleed & ulcerate
- Heavily pigmented
- 5% are amelanotic

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- Common in dark-skinned people
- Confined to palms, soles and nails



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• **Lentigo maligna**

- Pre-invasive stage
- Last for years
- Risk of malignant transformation
- Very slowly expanding, pigmented, macular lesion
- On photo-exposed, head and neck sites of elderly patients
- Histologically, in-situ changes only

- Nodule of invasive melanoma develops in a proportion of cases after years. It is then called **Lentigo maligna melanoma**

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- Rare form
- Painless, proximally expanding streak of pigmentation, arising from the nail matrix
- Progresses to nail dystrophy & involve adjacent nail fold



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Determinants of Prognosis

1. Depth of Invasion
2. Spread to regional lymph nodes
3. Presence of metastases
4. Ulceration



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Treatment

1. **Excision** of the lesion, with 2 mm healthy skin margin.
Wider excision after histology.
2. **Sentinel node biopsy** - to determine local spread, & helps determine treatment & prognosis
3. **Photoprotection**
4. **Vitamin D** - diet & supplements
5. Metastatic disease - mostly palliative. **Chemotherapy** gives response in 10–30%
6. **Ipilimumab** - *a human monoclonal antibody*, improve survival in metastatic melanoma



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Prognosis

1. Breslow thickness

- Primary tumour < 1 mm - more than a 95% chance of disease-free survival at 10 years
- > 3.5 mm thickness - 10 years survival fall to $\sim 50\%$

2. Survival rates fall to less than 10% with advanced nodal or metastatic disease

Prevention

- Reduce exposure to the sun
- High-factor sunscreen use
- Wear protective clothing



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