Skin cancer	**Basal cell carcinoma**	**Squamous cell carcinoma**	**Melanoma**
Epidemiology	-Most common type of skin cancer.	Second most common skin cancer.	-Highly malignant tumor, most common life-threatening dermatological disease.
Etiology	Arise from cells in the stratum basal layer.	-Malignant transformation of keratinocytes in the stratum spinosum of the epidermis. -Actinic keratosis, Bowen disease (SSCIS) and leukoplakia are premalignant.	-It arises from the melanocytes at the junction between the epidermis and dermis. -Precursor lesions: Melanoma, congenital nevi, acquired melanocytic nevi, Dysplastic or atypical nevi, spitz nevus (not precancerous), lentigo maligna (melanoma in situ).
Risk factors	1-Exposure: Sun exposure, UV-light, old age. 2-Genetic predisposition (albinism and xeroderma pigmentosum, basal cell nevus syndrome). 3-Nevus sebaceous of Jadassohn. 3-Chemicals: arsenic.	• Chronic ulcers, immunosuppression. • UV, radiation, and chemical carcinogen exposure. • Viral infection (HPV). • Precursor lesions mentioned above.	• Light skin, blue eyes, red hair. Male gender, old age. Genetics (BRAF mutation). Immunosuppression. Freckling Family history of melanoma. Precursor lesions mentioned above. UV-light. Sun burns.
Clinical features	• location: -skin exposed to sun. -above the line between the earlobe and the mouth corner. ---------- Nodules: (Nodules -> Pearly and superficial telangiectasia, its breakdown leads to ulcers.	• Location: face (lower lip, ears), hands and neck. • Locally invasive but grows slowly. • Nodular, papillomatosis, plaque, eventually it will ulcerate.	*Pruritic, persistently bleeding skin lesion. *Dermoscopy should be used to examine lesions for ABCDE criteria: A = Asymmetry B = Border (irregular border with indistinct margins) C = Color (new changes in pigmentation or variations in pigmentation within the same lesion)

	Ulcer-> central depression and a rolled borders). Superficial BCC		D = Diameter > 6 mm. E = Evolving (new lesion or a lesion that changes in size, shape, or color over time).
Metastasis	Rare, least rapid to spread to the lymph nodes.	It will metastasize to the lymph nodes if not removed.	Metastasize rapidly to the lymph and blood vessels. Lung, liver, brain.
Types	Nodular and superficial.	Verrucous → slow growing lesion. Ulcerative → rapidly growing lesion. Marjolin → chronic ulcer.	Superficial spreading melanoma Nodular melanoma Lentigo maligna melanoma Acral lentiginous melanoma.
Diagnosis	Full thickness biopsy.	Biopsy (till reaching the mid-reticular dermis for suspicious lesions). (Punch or wedge biopsy). Shows: atypical keratinocytes, keratin pearls.	*A full-thickness excisional biopsy (best diagnostic test) with 1–3 mm margins is indicated in all suspicious lesions. *Staging tests (e.g., ultrasound or MRI) once diagnosis confirmed: to determine tumor thickness, spread to lymph nodes, or distant metastasis.
Treatment	Standard treatment: 1-Surgical excision (wide local excision). 2-Mohs micro-graphic surgery. 3-Cryotherapy and radiation for the remnants. Alternative treatment: Radiotherapy.	-Surgical excision of the lesion along with a rim of normal skin. -Mohs-micrographic surgery. -Adjuvant treatment→ chemotherapy and radiotherapy.	**Surgical excision: full-thickness excision with appropriate safety margins 0.5–1 cm safety margin: melanoma in situ (T0) Other margins according to Breslow depth: thickness from the granular layer to the lowest detectable tumor cell. The Breslow index correlates with the risk of metastasis.

			**BRAF kinase inhibitor (e.g., vemurafenib) is used in metastatic or unresectable melanomas that have the BRAF V600E mutation. Immunotherapy: checkpoint inhibitors (e.g., pembrolizumab, nivolumab) for tumors positive for PD-1 mutations.
Notes		Keratoacanthoma is generally considered to be a benign cutaneous lesion with initial rapid growth and spontaneous involution over several months. It is not generally appreciated that the keratoacanthoma may have a malignant potential or be associated with carcinoma. Treatment: The tumor usually heals without treatment. Nonetheless, surgical removal is preferred because keratoacanthoma histologically resembles a cSCC, which is malignant.	There is ocular and mucosal melanoma.