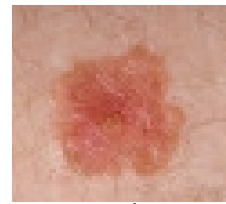
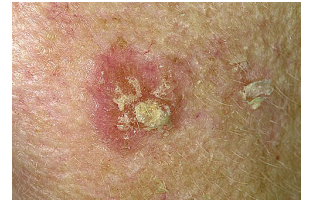


SQUAMOUS CELL CARCINOMA In Situ (SCCIS)

SCCIS is most often caused by UVR or HPV infection, It commonly arises from excessive sun exposure in epithelial dysplastic lesions such as solar keratoses or HPV-induced squamous intraepithelial lesions (SIL).

On Exam: Appears as sharply demarcated, scaling, or hyperkeratotic macules, papules, or plaques. Lesions may be pink or red in color and have a slightly scaling surface, small erosions, and can be crusted. Such lesions are always well-defined and called *Bowen's disease*. Red, sharply demarcated, glistening macular or plaque-like SCCIS may occur on the glans penis or labia minora. Anogenital HPV-induced SCCIS may be tan, brown, or black. Eroded lesions may have areas of crusting. SCCIS may be mistaken for a patch of eczema or psoriasis and go undiagnosed for years, resulting in large lesions with annular or polycystic borders. Once invasion occurs, nodular lesions appear within the plaque and the lesion is then referred to as Bowen's carcinoma.



Bowens disease



Bowens carcinoma

Differential Diagnosis: nummular eczema, psoriasis, seborrheic keratosis, solar keratoses, verruca vulgaris, verruca plana, condyloma acuminatum, superficial BCC, amelanotic melanoma, Paget's disease. **Always biopsy to confirm diagnosis** if unsure.

Treatment:

1. **Topical chemotherapy** - 5-fluorouracil cream applied daily or BID with or without tape occlusion. Imiquimod may also be used but both require considerable time to clear.
2. **Cryosurgery** - highly effective. Lesions are usually treated more aggressively than solar keratoses and superficial scarring will result.
3. **Surgical excision** - Excisional biopsy to include entire lesion. This has the highest cure rate but the greatest chance of causing cosmetically disfiguring scars. It is the only method able to confirm histological diagnosis and is always done if question of invasion.

Prognosis: If untreated, SCCIS will progress to invasive SCC. Lymph node metastasis can occur without demonstrable invasion.

INVASIVE SQUAMOUS CELL CARCINOMA

Invasive SCC is a malignant tumor of keratinocytes, arising in the epidermis, skin appendages, and other stratified squamous mucosa. SCC usually arises in epidermal precancerous lesions and varies in aggressiveness. The majority of UV radiation-induced lesions have a low rate of distant metastasis in otherwise healthy individuals. More aggressive SCC occur in immunosuppressed individuals with a greater risk of metastasis.

Predisposing factors: Fair skinned individuals with skin phototypes I and II exposed to excessive sunlight over their lifetime. Phototherapy, PUVA (oral psoralen + UVA) as seen in treatments for psoriasis. Human papillomavirus have also been isolated from SCCs.

On Exam: There are 2 different clinical types of basal cell carcinomas.

1. **Highly differentiated** - Indurated papules, plaques, or nodules with a thick keratotic scale or hyperkeratosis. When ulcerated or eroded, the lesions may have crust on the center and be firm or hard on palpation with a hyperkeratotic elevated margin. They are erythematous, yellowish, skin color that can be polygonal, oval, or round. Regional lymphadenopathy may be palpated due to metastases.
2. **Poorly differentiated** - Fleshy, granulating, easily vulnerable, erosive papules and nodules and papillomatous vegetations. Ulceration with a necrotic bases and soft, fleshy margin. Bleeds easily, crusting. Red, soft, polygonal irregular or cauliflower-like with no signs of keratinization.



Treatment: Excisional biopsy to include entire lesion. If too large, may require referral to a surgeon for skin flaps or grafts.

Prognosis: SCC causes local tissue destruction but has a significant potential for metastases directed to regional lymph nodes and appear 1-3 years after initial diagnosis. SCC in the skin has an overall metastatic rate of 3-4% and is more common in larger deeper lesions. The rate is increased to 30% in SCC arising in chronic osteomyelitis sinus tracts. It is also increased in burn scars, and in sites of radiation dermatitis. High risk lesions are >2cm diameter and >4mm thick with clark levels IV -V.

Clark level

- I = intraepithelial
- II = invades papillary dermis
- III = fills papillary dermis
- IV = invades reticular dermis
- V = invades subcutaneous fat