

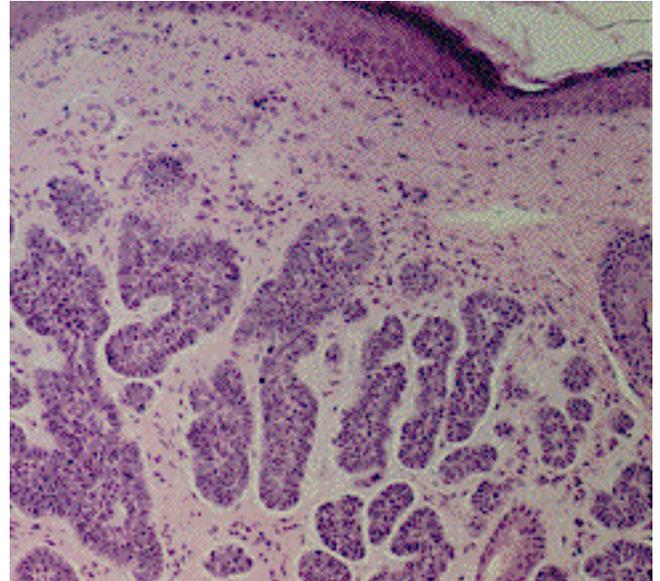
BASAL CELL CARCINOMA

Basal cell carcinoma is a locally invasive, slow growing malignancy that arises from the basal layer of the epidermis and its appendages. Long exposure to ultraviolet light is the chief cause and the tumor is the most common malignant neoplasm in fair-complected adults. It takes its name from the resemblance of the epithelial tumor cells to normal basal cells of the skin.

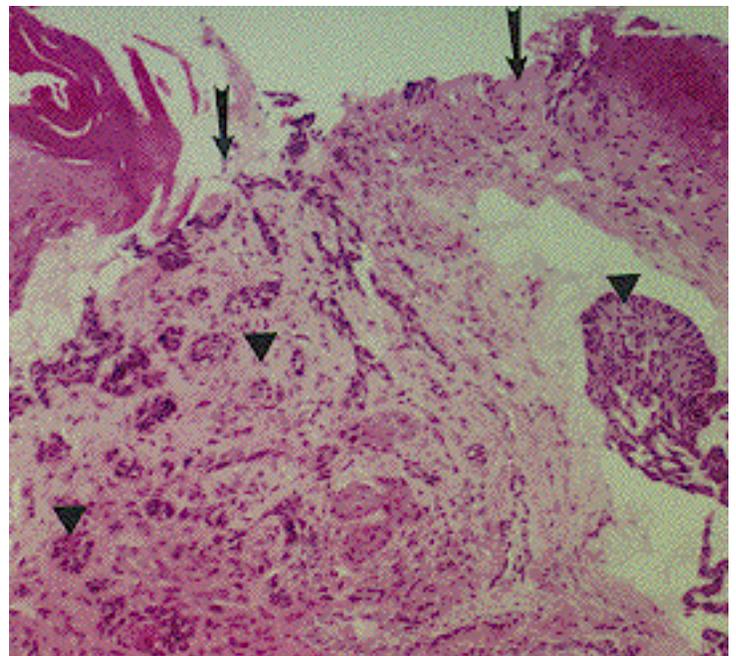
Ulceration is common, followed by healing and then repeated ulceration. While metastases are rare, there may be great local destruction of soft tissue and bone. A characteristic pearly opalescence is seen when the lesion is pressed under a glass and there are small vessels in the rolled, raised edge.

Microscopically, there are uniform, extremely dark basaloid cells with little cytoplasm and oval nuclei. The cells are attached to the epidermis and reach downward into the papillary dermis. There are distinct islands and cords of cells with palisading or "picket fence" arrangement of the peripheral cells that mimics the basal layer of the skin. Some lesions produce keratin with pearl formation and in others benign melanocytes give the lesion a black color. In the sclerosing form there are strands of tumor cells separated by dense collagenous tissue. Basosquamous carcinoma is a mixture of basal cell carcinoma and squamous carcinoma ("collision tumor").

Basal cell carcinoma. Nests of basaloid cells with a palisading border infiltrate the dermis. The nuclei are dark and the scant, faintly eosinophilic cytoplasm makes the cell borders hard to define.

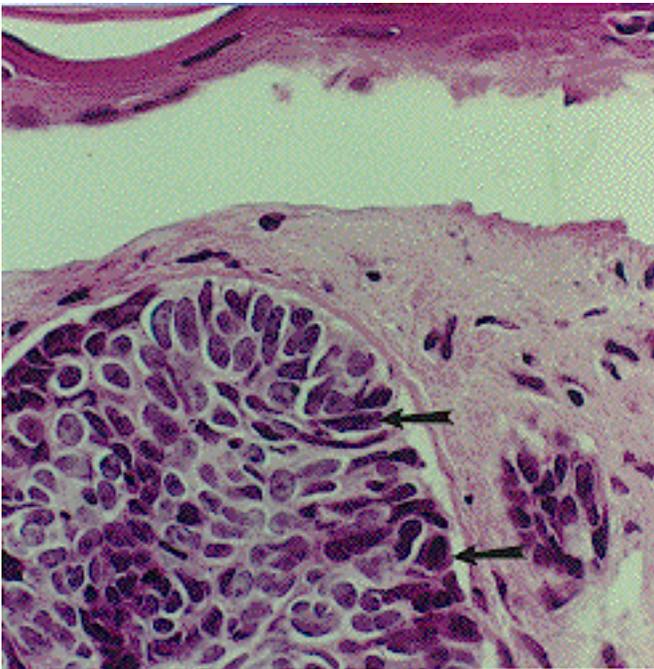


Basal cell carcinoma. Showing the ulceration (arrows) common to basal cell carcinoma. Individual cells and groups of cells invade the dermis (triangles).



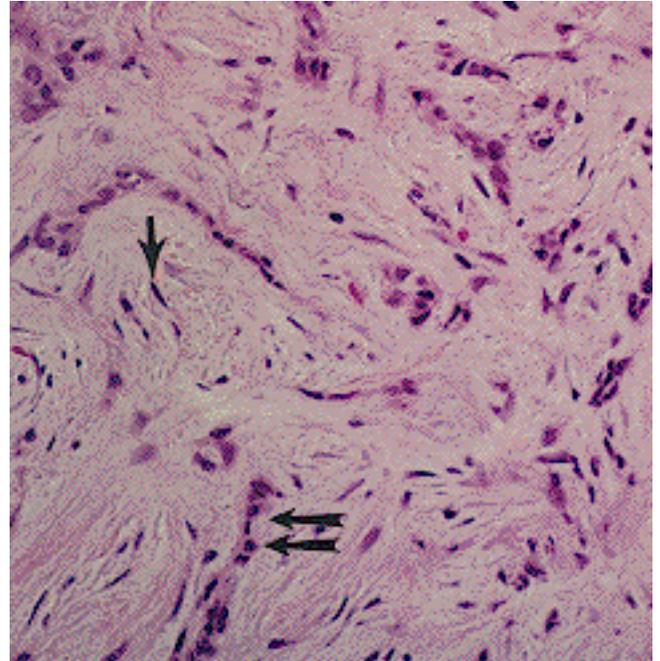


Basal cell carcinoma. Keratotic “horn cysts” (arrows) in basal cell carcinoma are not the same as keratin pearls in squamous cell carcinoma. Typical nests of carcinoma with peripheral palisading lie adjacent. The spaces around the tumor nests (triangles) are separation artifacts.

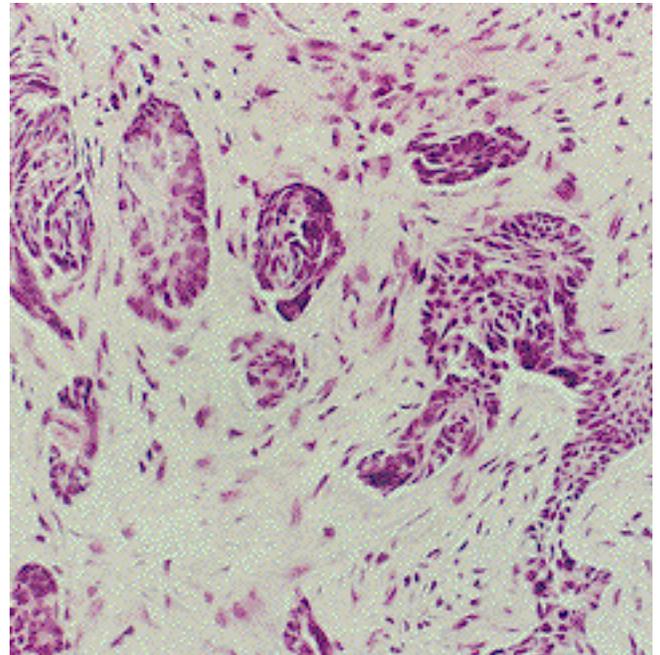


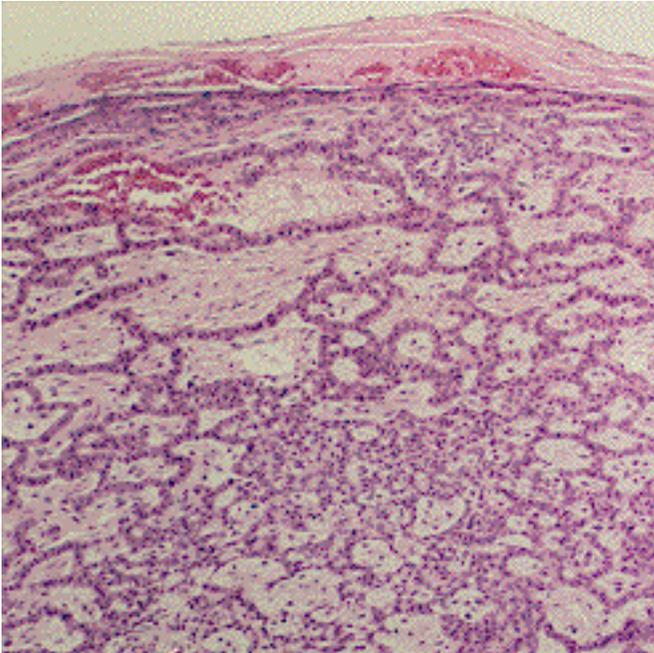
Basal cell carcinoma. High power showing uniform dense, hyperchromatic nuclei (arrows) and cells with scant cytoplasm. Note how the outer cell border is perpendicularly oriented to the cells in the center of the nest. Epidermis is above with a large artifactual space separating it from the papillary dermis.

Basal cell carcinoma, sclerosing type, with small strand-like groups of closely packed cells, all separated by dense fibrous tissue. Single arrow points to a fibrocyte, double arrows to tumor cells.

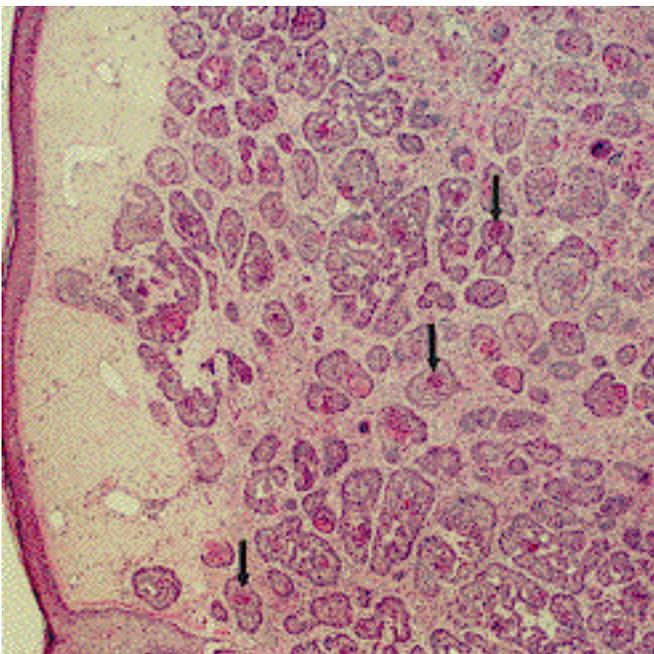


Basal cell carcinoma, sclerosing type, high power.



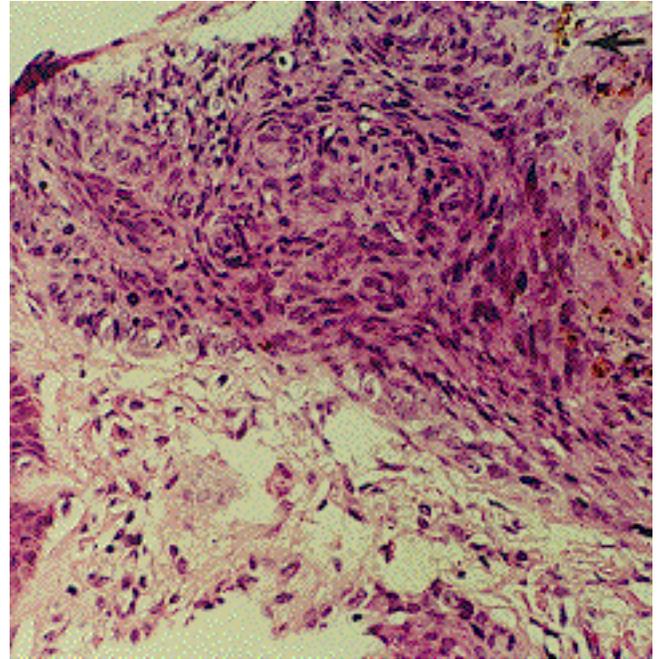


Basal cell carcinoma, fibroepithelioma of Pinkus. Seen here are long, thin, anastomosing strands of basal cells surrounding islands of fibrous tissue stroma, with connection to the surface of the epidermis. It probably originates from the keratinocytes of pilosebaceous units and not from epidermal basal cells.

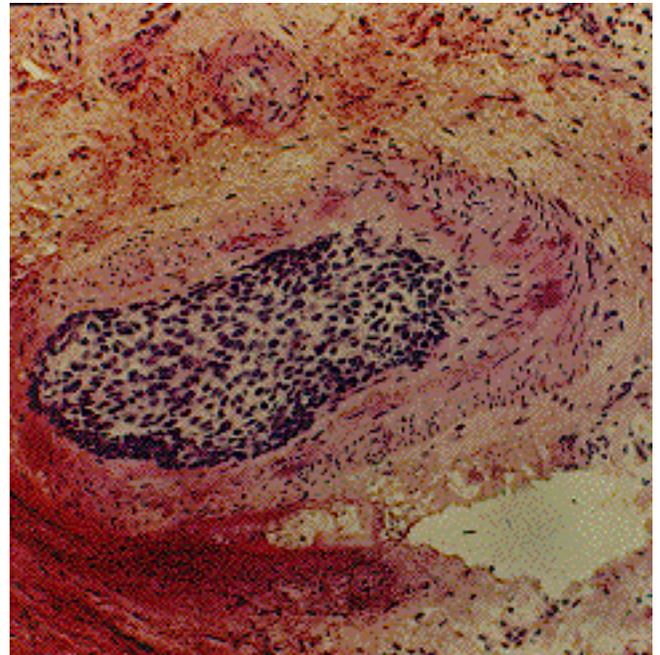


Basal cell carcinoma, with keratin pearls in almost every group of tumor cells. Note the light-staining area of solar elastosis between the tumor and epidermis.

Basal cell carcinoma, with melanin(arrows). Melanin in basal cell carcinoma produces a dark cutaneous lesion that resembles melanoma. Melanocytes can be demonstrated in most basal cell carcinomas by special stains and is present in up to a quarter of all basal cell carcinomas stained by H-E method but large amounts of melanin are unusual.



Basal cell carcinoma in blood vessel of dermis. Metastasis from basal cell carcinoma is very rare, but does occur in selected cases.



CLINICAL ASPECTS:

Affecting males more often than females and strongly influenced by actinic exposure, small basal cell carcinomas may be easily removed surgically by conventional excisional methods or by Moh's surgery. Surgical cure is particularly successful when the lesion is confined to a part not immediately adjacent to a structure such as the eye where adequate tumor surgery may compromise function or cosmesis and necessitate an elaborate reconstructive procedure. In neglected cases, surgery requires extensive and greatly deforming procedures. Basal cell carcinoma has been called "rodent ulcer" for good reason—it burrows subcutaneously and the limits of the tumor may be clinically undemonstrable so that frozen section diagnosis, to be as sure as possible of free margins, is important.

Irradiation treatment is also effective and is used particularly where a surgical procedure would compromise function or be cosmetically unacceptable.

Metastases do occur, but are rare.