

Basal cell carcinoma

Basal cell carcinoma

- Locally invasive, slow-growing tumor mass of the skin
- Middle aged and rarely metastasizes
- Site:
 - Hair skin exposed to sun, usually above a line joining lobe of ear to the corner of the mouth.
 - Face-90%

Etiology

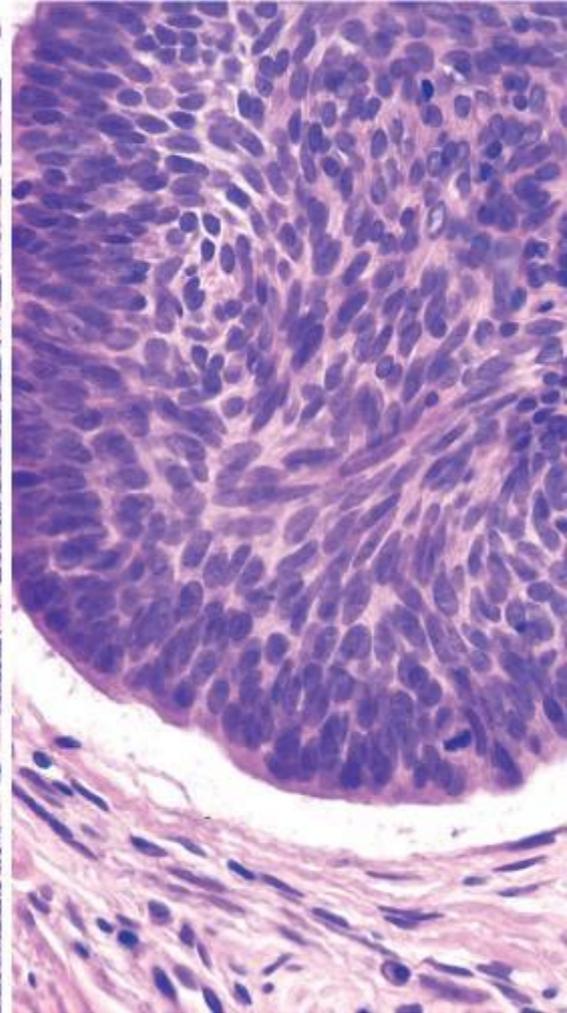
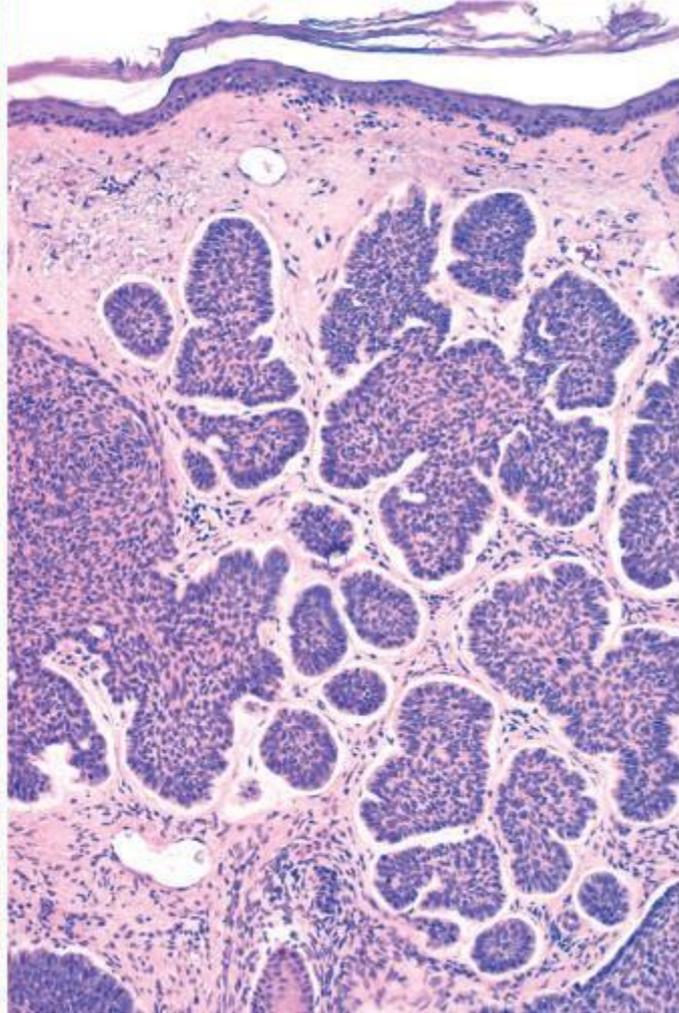
- Chronic sun exposure in those living in New Zealand and Austria
- Incidence increases with immunosuppression
- Mechanisms of inheritance defects in DNA repairs in xeroderma pigmentosa
- Nevoid basal cell carcinoma syndrome
 - Autosomal dominant condition in which multiple basal cell carcinomas appear at a younger age, mostly under 20 years.
 - Inheritance defects of one allele of the PTCH gene on chromosome number 9, while another allele undergoes mutation in early life by sun exposure, are (Hudson's two-hit hypothesis).

Morphology

- Gross
 - Most common form is a nodulo-ulcerative
 - Nodular, ulcerative, superficial or erythematous.
 - Nodulo-ulcerative basal cell carcinoma:
 - Slowly enlarging ulcer surrounded by a pearly, rolled border
 - **Rodent ulcer**

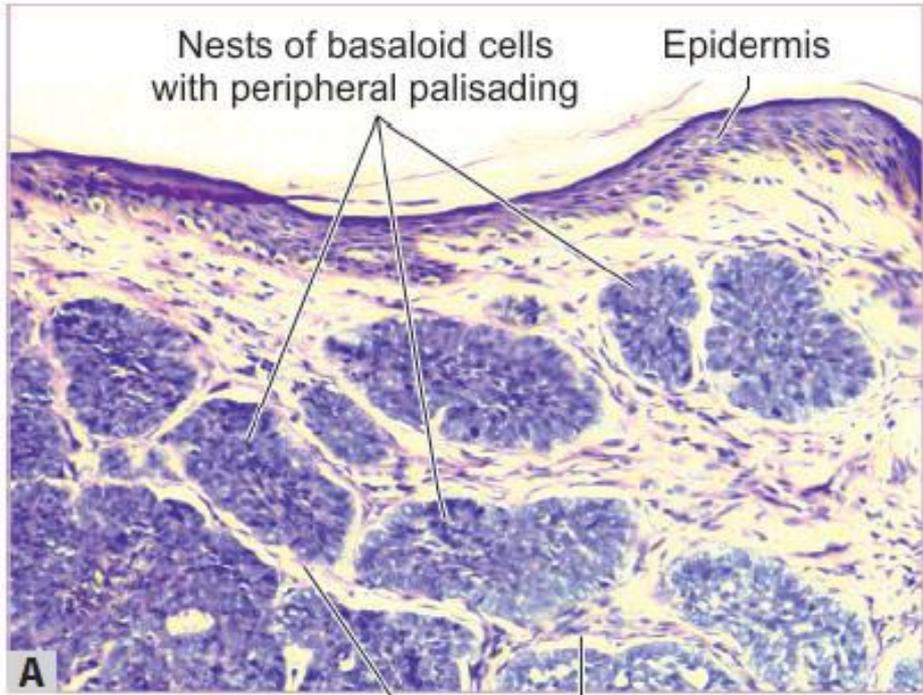
Morphology

- Microscopy
 - Tumor cells are deeply basophilic epithelial cells.
 - Tumor cells are large, oval, or elongated nucleus with narrow rim of cytoplasm.
 - Tumor cells are arranged in nests
 - **Peripheral palisading:** columnar cells are arranged radially with their long axes in parallel alignment
 - **Clefting artifact** between tumor islands and adjacent stroma

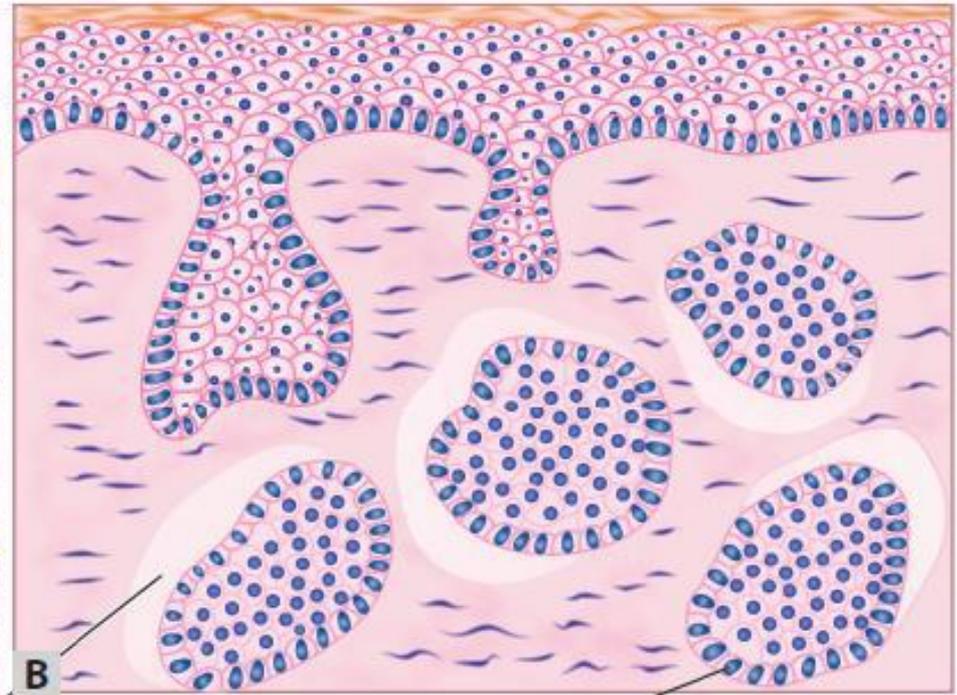


Morphology

- Microscopy:
 - Two patterns of growth:
 - Multifocal growths:
 - Originating from the epidermis and extending multifocal superficially along the surface.
 - Nodular lesions:
 - They grow downward into dermis as cords and islands of **basophilic cells** with **hyperchromatic nucleus** in a mucinous matrix.
 - The peripheral cells of the tumor cell island tend to be arranged readily as **peripheral palisading**.
 - The stroma shrinks away from the tumor nests- retraction **separation artifact**.



Clefting artifact between tumor islands and adjacent stroma



Clinical Presentation

- Erodes the underlying tissue like a rodent
- Locally invasive
- Metastasis very rare.