

Diseases of the Nipple

Mammary Paget disease

Intraepidermal proliferation of malignant glandular epithelial cells in the nipple areolar region.

Clinically, nipple is often erythematous, crusted, and eroded.

Most cases are a cutaneous extension of DCIS or invasive carcinoma. If not present, may derive from Toker cells.

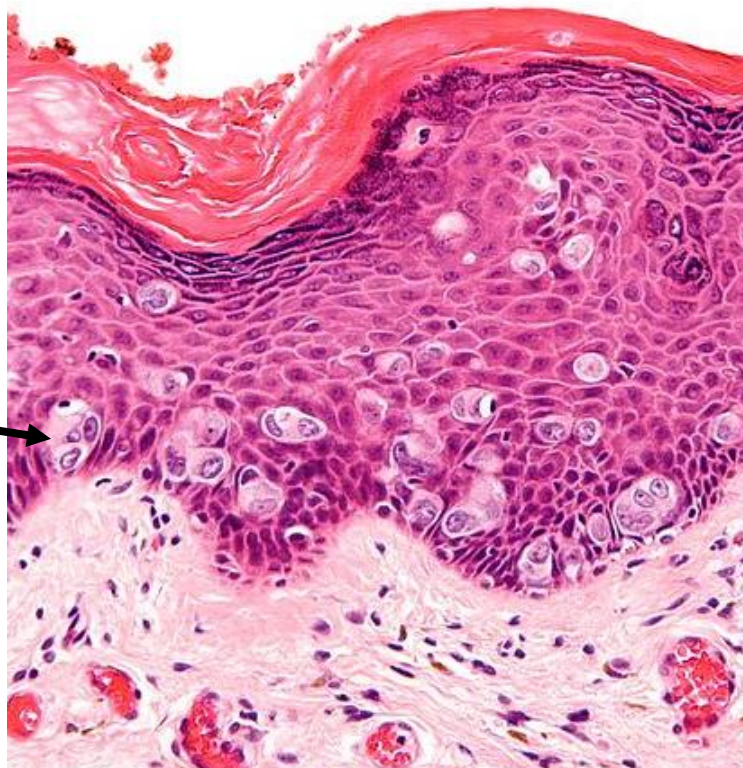
Tumor cells have **abundant pale cytoplasm with large nucleoli and prominent nucleoli**. May form glandular structures and contain mucin.

May secondarily invade the dermis.

IHC: (+) CK7, **HER2 in most cases**. Usu. ER (-)

DDX: SCCIS, Melanoma in situ (both rare in the nipple), and Toker cell hyperplasia

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Nipple Adenoma

Benign epithelial proliferation of the superficial duct orifices. Very rare.

Clinically can mimic Paget's as often erythematous and crusted.

Nodular mass directly under the surface of the nipple, often in continuity with the surface.

Overall, relatively well circumscribed.

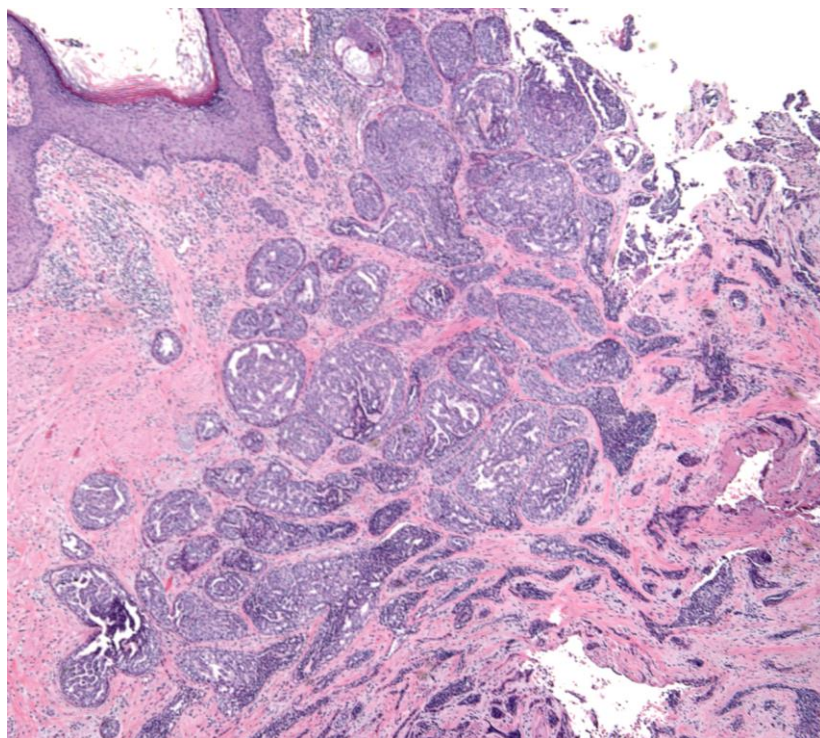
Wedge-shaped, symmetrical.

Composed of a mixture of simple ducts, areas resembling sclerosing adenosis, papilloma, and sometimes **florid UDH**. Myoepithelial cells surround the ducts.

Stromal fibrosis may entrap ducts in a pattern resembling invasive carcinoma

Molecular: Frequent PIK3CA mutations

Main significance is to not confuse it with invasive carcinoma!



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Syringomatous Tumor

Benign infiltrative tumor resembling a cutaneous syringoma.

Locally **infiltrative** tumor in the dermis and smooth muscle of the nipple and areola, composed of bland cells with **glandular and squamous morphology**.

No *destructive* invasion into ducts or epidermis.

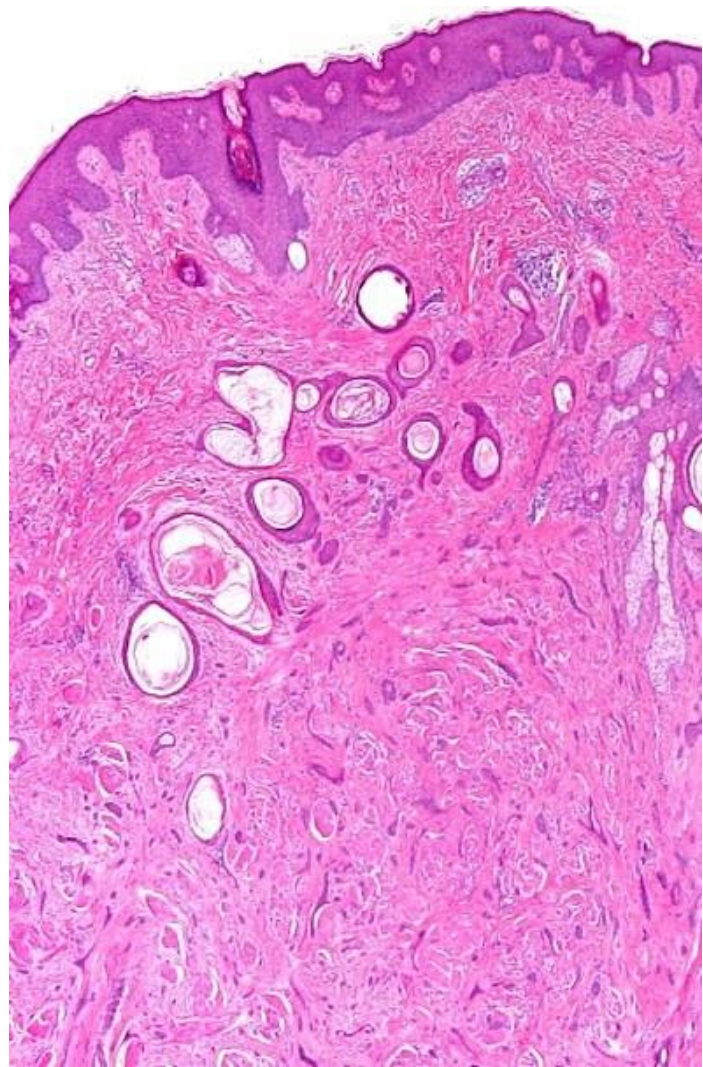
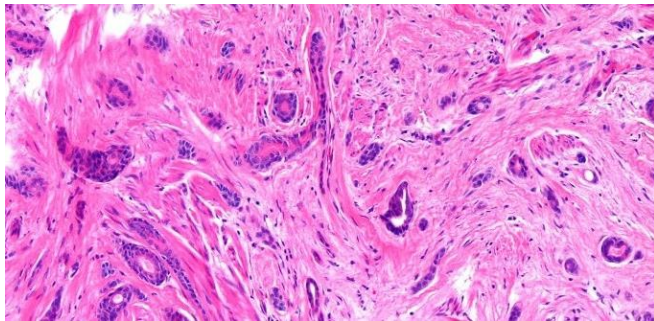
Poorly-circumscribed.

Often has **keratin-filled cysts** near the surface.

Like the cutaneous counterpart, many of the nests are **“tadpole” shaped with comma-like tails**

IHC: Given both glandular and squamous cells, staining is variable, but dominant cell type stains with p63 and HMWCKs, with variable myoepithelial marker staining.

ER (mostly -); HER2 (-)



Squamous Metaplasia of the Lactiferous Ducts

“SMOLD”

Squamous metaplasia of lactiferous ducts, with **abundant keratin** in the lumen → clogging.

Surrounded mixed stromal **inflammatory infiltrate** with **foreign body giant cell reaction**, extruded keratin, and possible abscess formation.

May occur at any age.

Highly associated with smoking

Also known as “Recurrent subareolar abscess” and “Zuska disease”

Requires excision of duct to resolve

