

# Diseases of the Nipple

## Paget Disease of the Breast

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

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

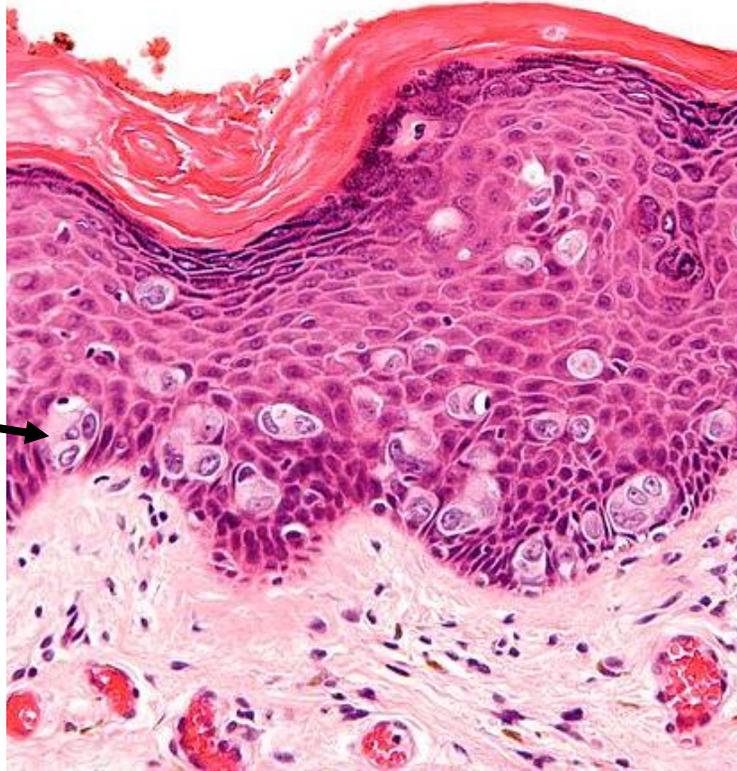
**Most cases are a cutaneous extension of DCIS or invasive carcinoma.** If not present, may derive from Toker cells.

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, Toker cell hyperplasia



## Nipple Adenoma

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

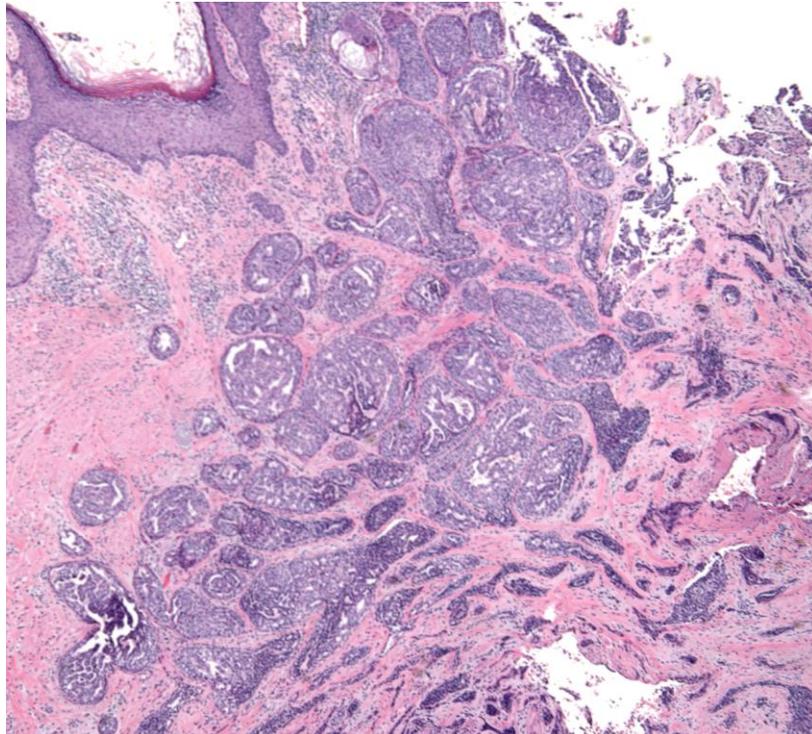
Clinically can mimic Paget's as often erythematous and crusted.

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

**Overall, relatively well circumscribed**  
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!**



## 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.

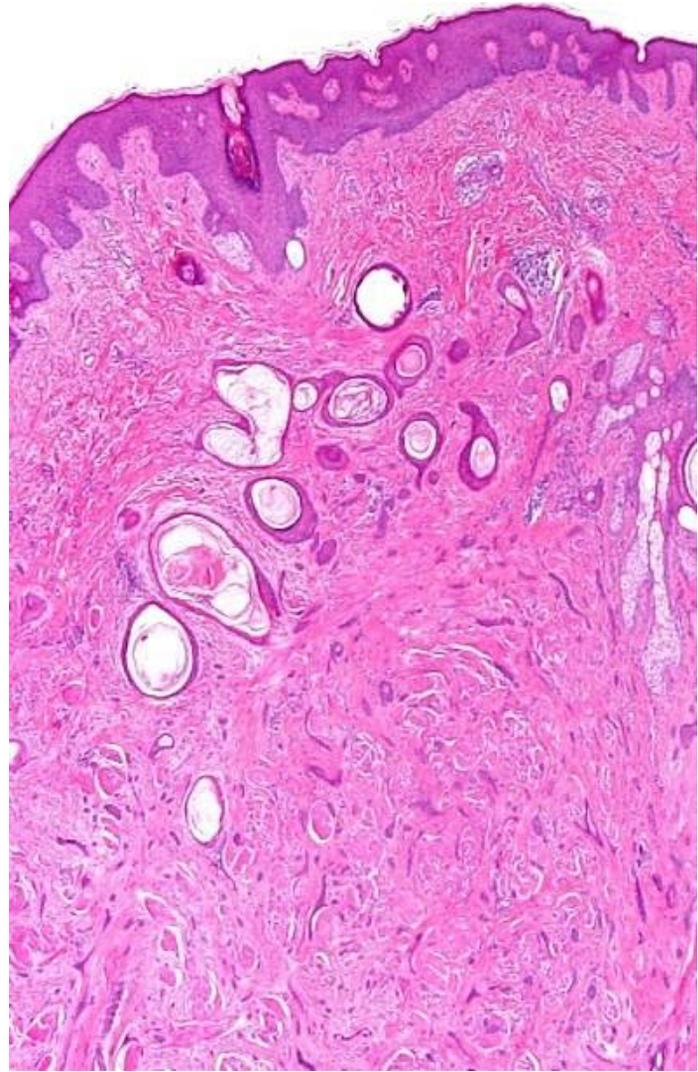
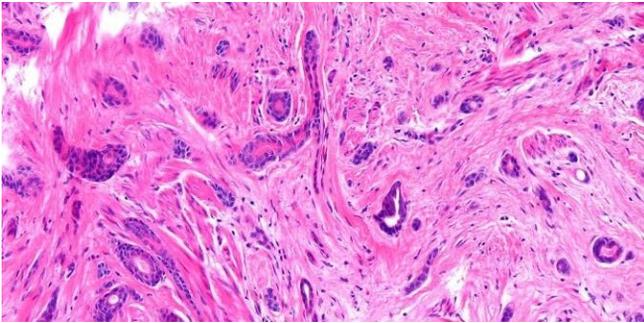
Poorly-circumscribed.

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

