

Bartholin Cyst

Obstructive cysts, adenitis and suppurative complications

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Learning objectives

- Explain how inflammation-associated duct obstruction produces a Bartholin duct cyst.
- Distinguish a duct cyst from glandular adenitis and a localized abscess.
- Identify the reported epithelial linings and relevant morphologic patterns.
- Relate symptoms and the two textbook-listed procedures to pathology.

Three distinct pathological states

Duct cyst

Duct cyst: An obstructed drainage pathway.

Adenitis

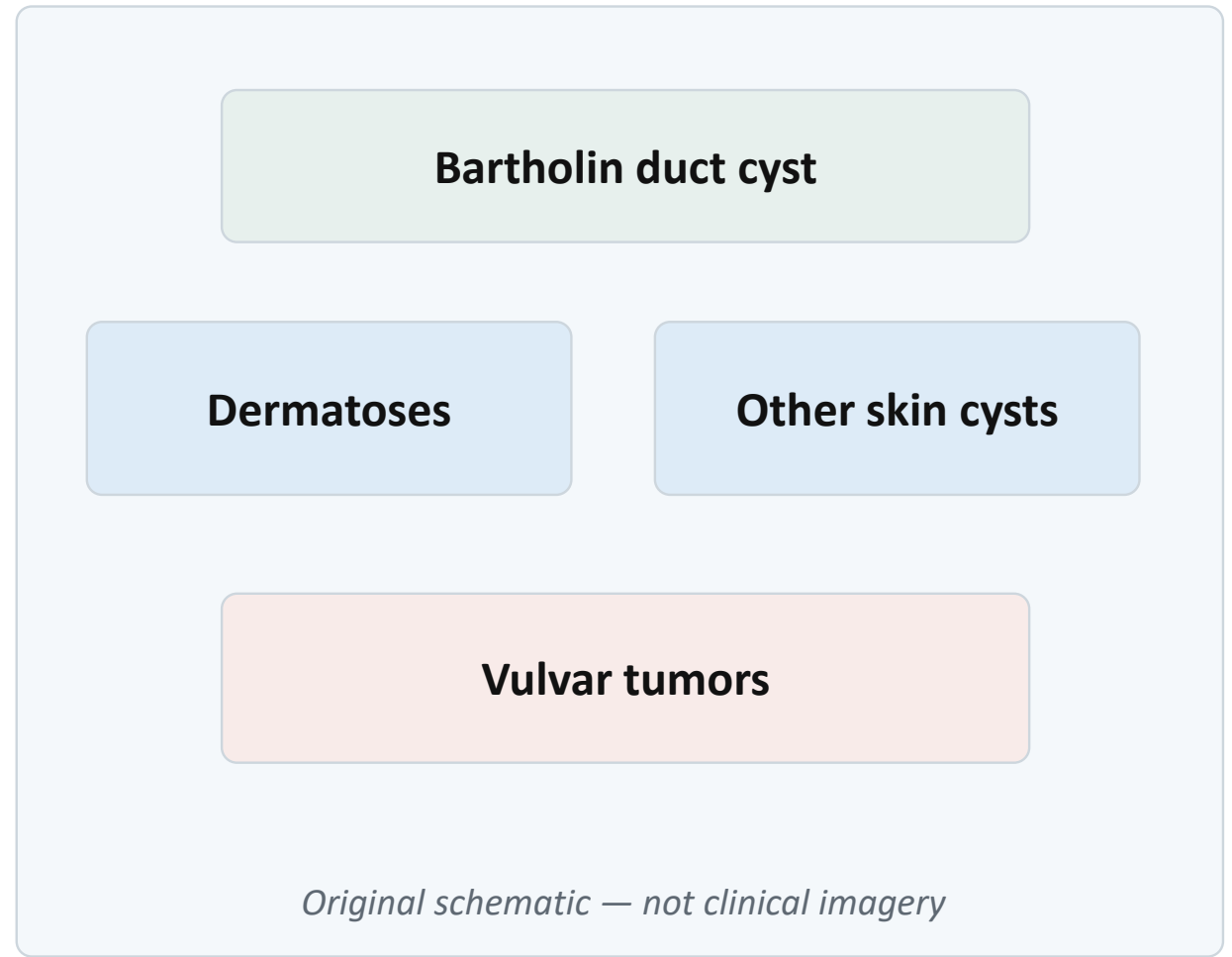
Adenitis: Acute inflammation involving the gland.

Abscess

Abscess: A localized collection of pus.

Bartholin cyst belongs to vulvar pathology

- Bartholin cyst within disorders of the vulva.
- Other vulvar entities include inflammatory dermatoses, skin cysts and neoplasms.
- A local cystic lesion should not be equated with every vulvar abnormality.



The vulva is susceptible to superficial infection

Secretions + moisture



Local susceptibility



Superficial infection

- Persistent exposure to moisture and secretions favors superficial infection.
- This context helps explain why inflammation appears among vulvar disorders.
- It does not establish a unique organism for an individual lesion.

Local cysts and other vulvar diseases coexist

Focal cystic process

- A duct obstruction produces a defined cystic lesion.
- Its clinical effect is related to enlargement and local discomfort.

Other vulvar processes

- Eczema, psoriasis and dermatitis may affect vulvar skin.
- Epidermal inclusion cysts and skin tumors also occur in the vulva.

The initiating event is duct obstruction

Inflammation



Duct obstruction

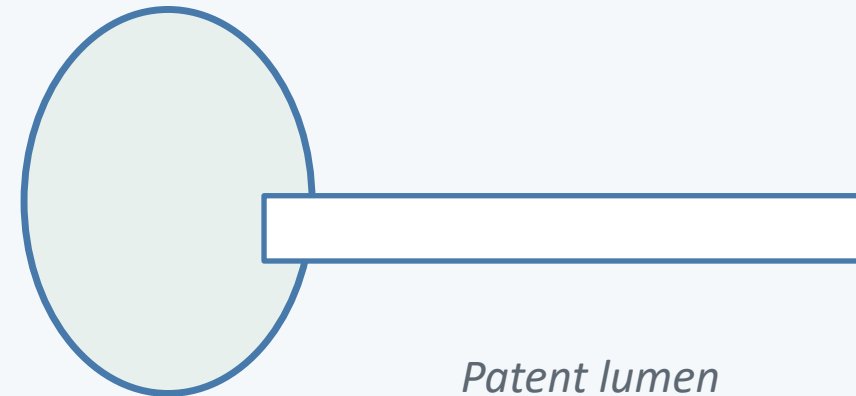


Duct cyst

- Bartholin duct cysts to an obstructed duct.
- An inflammatory process is the stated cause of the obstruction.
- The result is a cystic dilatation of the duct.

A patent duct is not a duct cyst

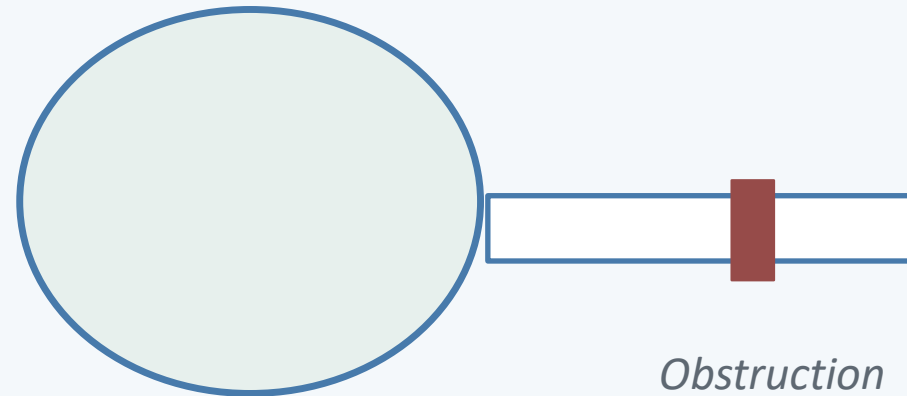
- An open duct permits communication along its lumen.
- The comparison schematic isolates lumen patency as the defining variable.
- It is conceptual anatomy, not a measured anatomical reconstruction.



Schematic — gland and duct; Not a specimen

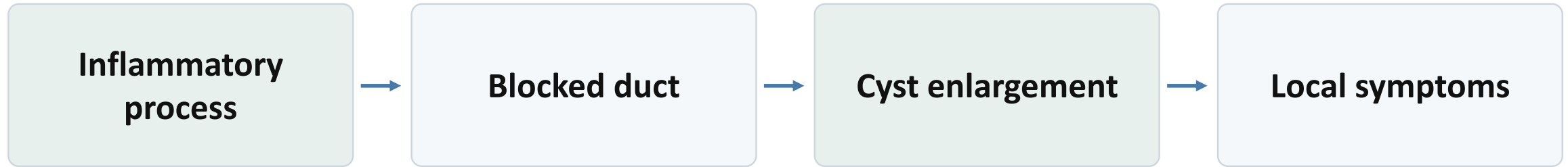
An obstructed duct creates cystic expansion

- Loss of luminal patency is central to cyst development.
- The enlarged compartment represents cyst formation on the gland side of the obstruction.
- The figure shows the mechanism conceptually, not a clinical specimen.



Schematic — gland and duct; Not a specimen

Inflammation links cause and morphology



- Inflammation is presented as the process obstructing the duct.
- Obstruction is the direct explanation for cyst formation.
- Pain or discomfort emerges when the cyst enlarges.

Ductal obstruction is not a neoplasm

Obstructive cyst

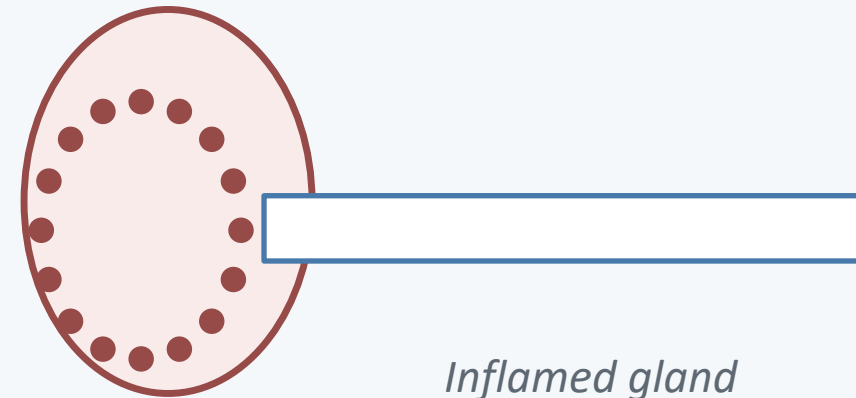
- Mechanism: Blocked duct due to inflammation.
- Principal lesion: A cyst lined by epithelium.

Vulvar tumor

- A different process: A tissue neoplasm.
- The vulva can develop benign and malignant tumors.

Gland infection is termed adenitis

- Bartholin gland infection produces acute glandular inflammation.
- The source calls this inflammatory state adenitis.
- The term describes inflammation, not necessarily a formed cyst.



Inflammatory cells (schematic)

Schematic — gland and duct; Not a specimen

Adenitis may be complicated by abscess

Bartholin gland infection



Acute adenitis



Possible abscess

- Abscess formation is a possible consequence of gland infection.
- “May result” indicates possibility, not inevitable progression.
- Cyst formation and abscess formation describe different tissue changes.

Cyst, adenitis and abscess are not synonyms

Duct obstruction

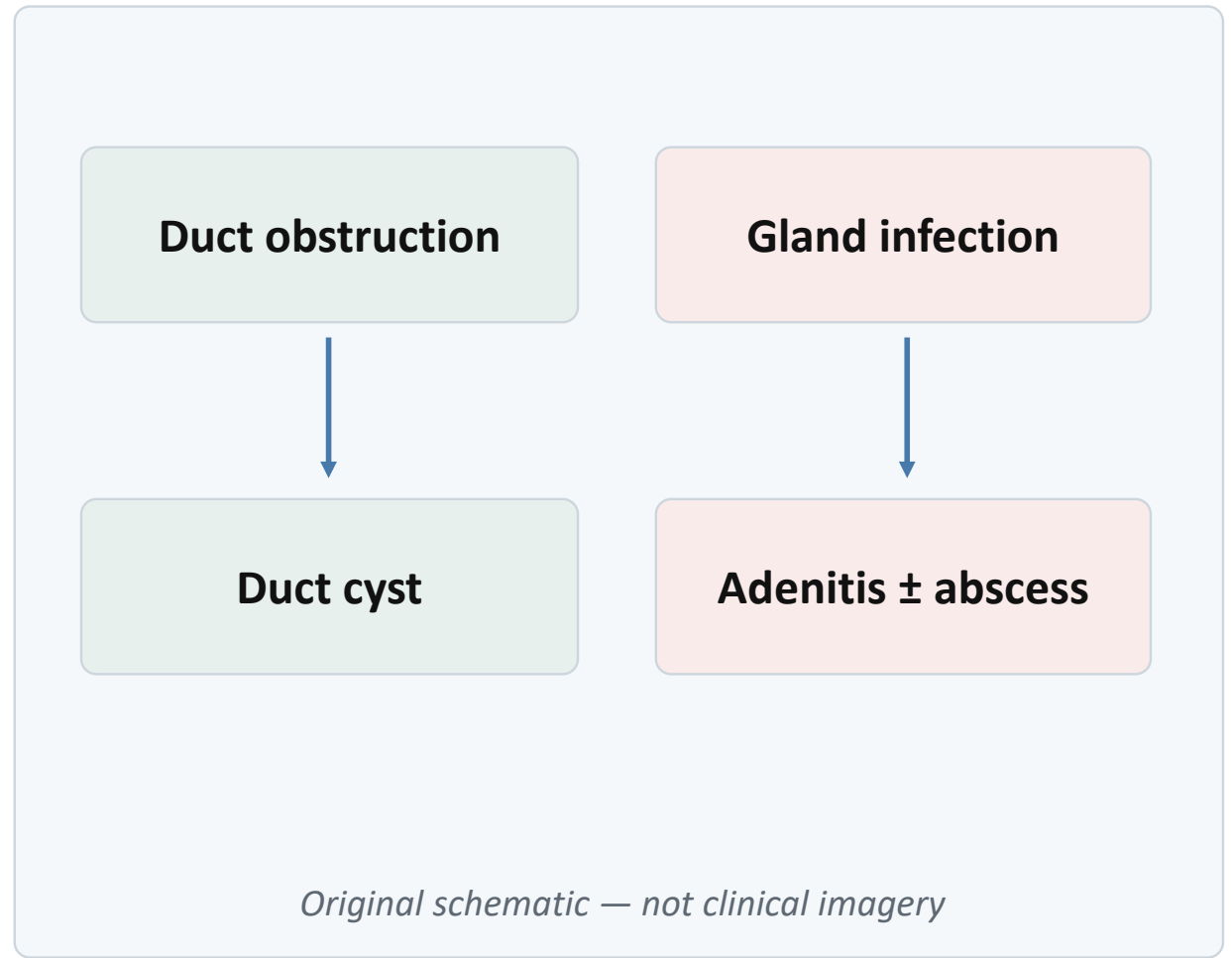
- Defines the cyst mechanism.
- Look for a cystic space and epithelial lining.

Suppurative infection

- Adenitis indicates inflamed gland.
- Abscess means localized pus within tissue or a space.

The pathways can intersect

- A Bartholin cyst can be considered by its obstructive mechanism.
- An infected gland can show acute inflammation and abscess formation.
- The textbook also refers to Bartholin cyst abscesses in its infection chapter.



A local gland infection is not synonymous with PID

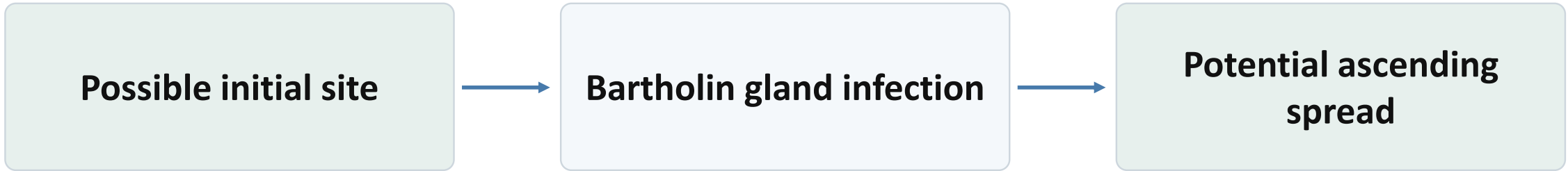
Localized Bartholin disease

- Focus: Gland, duct or adjacent cyst.
- The teaching unit emphasizes local cyst/abscess pathology.

Pelvic inflammatory disease

- An ascending infection involving upper female genital organs.
- The adjacent section discusses salpingitis and tubal sequelae.

Gonococcal infection may begin in the gland



- The PID section identifies the Bartholin gland as a possible initial site.
- It also identifies endocervical mucosa and other glands as initial sites.
- Do not infer that every Bartholin abscess is gonococcal.

Suppurative inflammation forms pus

Neutrophils

Pus contains abundant neutrophils.

Cell debris

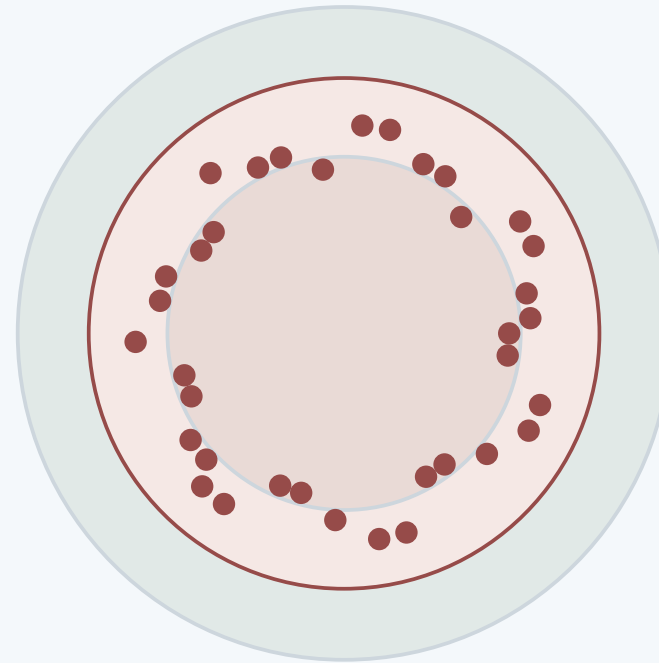
Liquefied necrotic cell debris contributes to the exudate.

Edema fluid

Edema fluid forms another component.

An abscess is a localized collection of pus

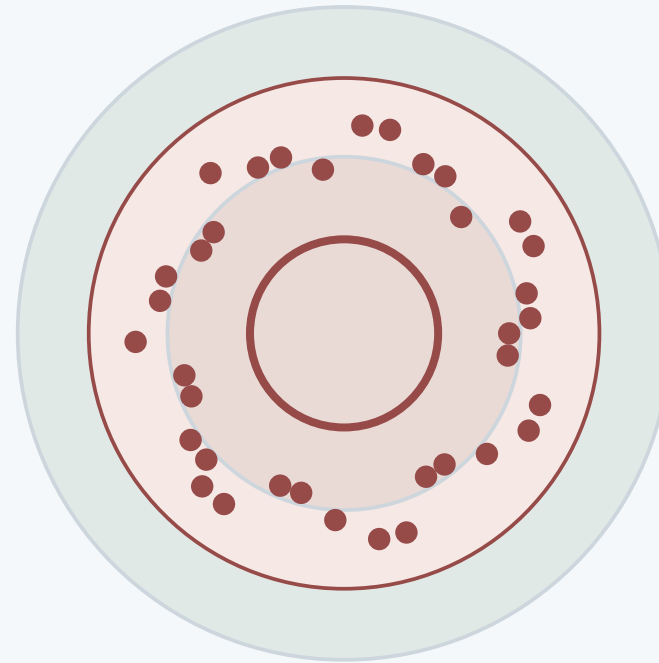
- A confined purulent collection is the defining structural change.
- Abscess formation reflects suppuration within tissue or a closed space.
- This is more specific than uncomplicated inflammation.



Abscess zones — schematic, not histology

The abscess center undergoes liquefaction

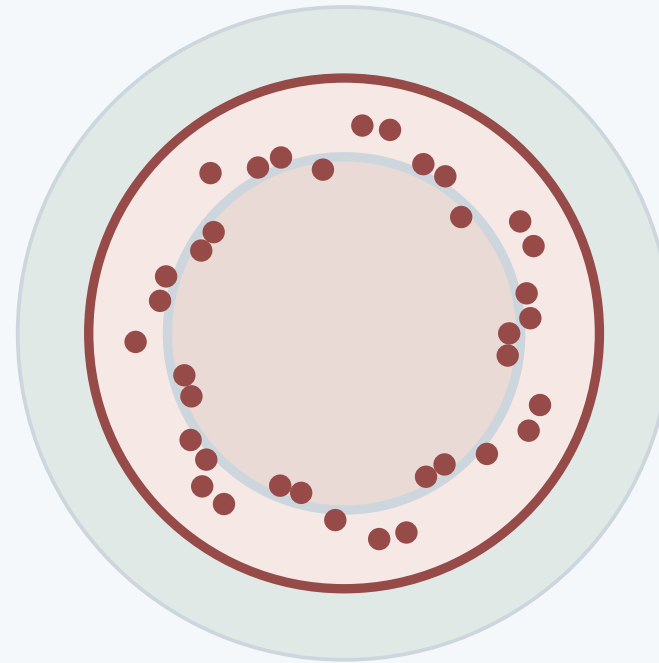
- The center contains necrotic leukocytes and tissue cells.
- Liquefaction gives the abscess its characteristic pus-filled center.
- An epithelial cyst lining is a separate morphologic feature.



Abscess zones — schematic, not histology

Preserved neutrophils surround the necrotic focus

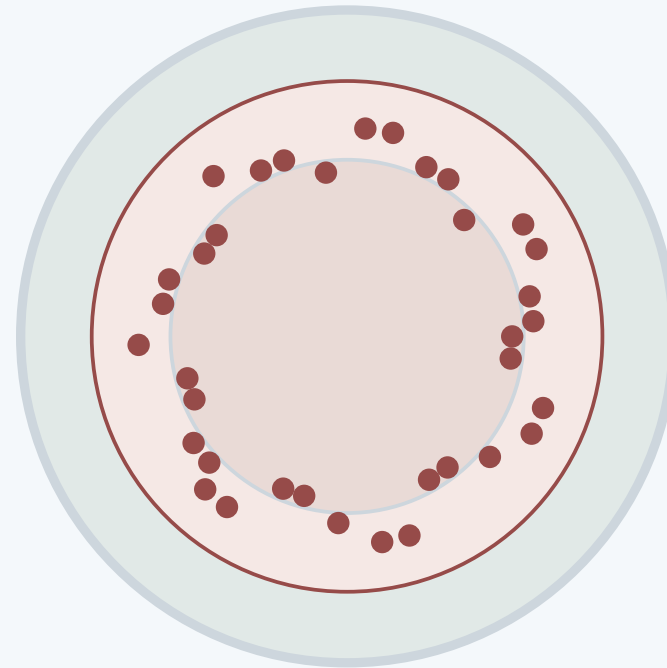
- The zone outside the central liquefied focus contains neutrophils.
- This pattern reflects ongoing acute inflammation at the margin.
- The schematic illustrates zones; It does not reproduce histology.



Abscess zones — schematic, not histology

Peripheral changes indicate inflammation and repair

- Outer tissue may exhibit vasodilation and reactive proliferation.
- Fibroblastic proliferation can occur around the collection.
- The marginal tissue context helps identify a mature abscess.



Abscess zones — schematic, not histology

Some abscesses become walled off

Purulent focus



Peripheral repair



Possible walling-off

- A localized suppurative focus can develop a surrounding wall.
- Repair processes may later replace the abscess with connective tissue.
- These are general abscess outcomes, not recurrence predictions.

Abscess pathogens often originate in nearby microbiota

Adjacent microbiota



Mixed infection



Localized abscess

- The infectious-disease chapter links abscess organisms to local normal microbiota.
- Genital-tract abscesses may involve mixed organisms.
- This principle provides context for Bartholin cyst abscesses.

Female genital abscesses may be polymicrobial

Anaerobic organisms

- Anaerobic gram-negative bacilli are named.
- Prevotella spp. Are an example.

Facultative organisms

- The infectious-disease chapter describes mixed flora.
- E. Coli and S. Agalactiae are examples listed.

Prevotella is one named anaerobic contributor

- Robbins specifically names *Prevotella* spp. In female genital-tract abscesses.
- It is presented as an example among anaerobic gram-negative bacilli.
- This is not a claim that it causes every Bartholin abscess.
- Etiology at an individual site cannot be read from cyst size or lining.

E. Coli and S. Agalactiae may be mixed in

- Escherichia coli and Streptococcus agalactiae as possible co-isolates.
- Their mention illustrates the mixed-organism principle.
- The source does not give organism frequencies for Bartholin abscesses.

Anaerobic component

Prevotella spp.

E. Coli

S. Agalactiae

Original schematic — not clinical imagery

Morphology and microbiology answer different questions

Morphological question

- Is there a cyst lined by epithelium?
- Is there adenitis or a collection of pus?

Etiologic question

- Which organisms contributed to infection?
- Morphology alone does not identify a species with certainty.

Bartholin duct cysts occur across age groups

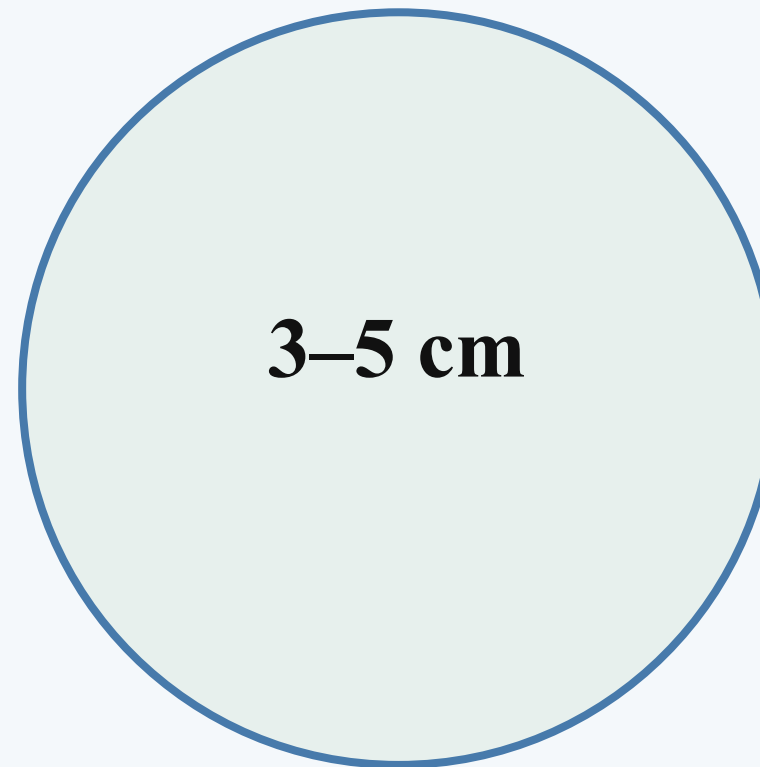
- Bartholin duct cysts as occurring at all ages.
- No age-specific numerical distribution is supplied in the source.
- The presence of a cyst is therefore not restricted to a single age stratum.

“Relatively common” is qualitative epidemiology

- The textbook calls Bartholin duct cysts relatively common.
- It does not provide incidence or prevalence in the relevant section.
- A numerical frequency should not be inferred from that phrase.

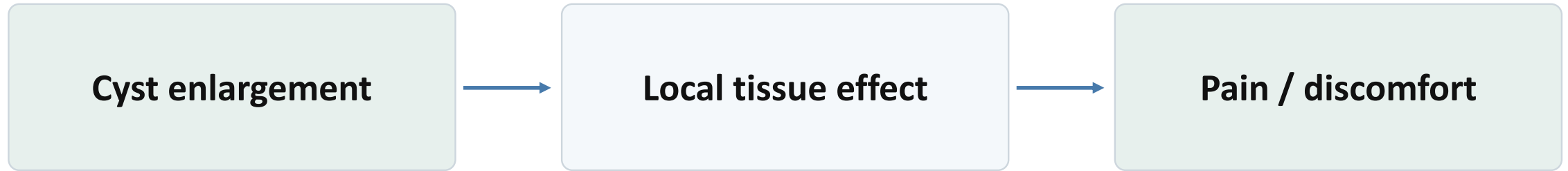
A cyst may enlarge to several centimeters

- The stated size range extends up to approximately 3–5 cm in diameter.
- Such enlargement can become clinically noticeable.
- The figure represents relative enlargement only; Not a scale drawing.



*Maximum diameter described
Original schematic — not clinical imagery*

Enlargement can produce pain and discomfort



- Pain and local discomfort are consequences described for enlarged lesions.
- The clinical impact is therefore tied to local structural expansion.
- Pain alone cannot classify the lesion as an abscess.

Clinical descriptors do not replace morphology

What symptoms tell us

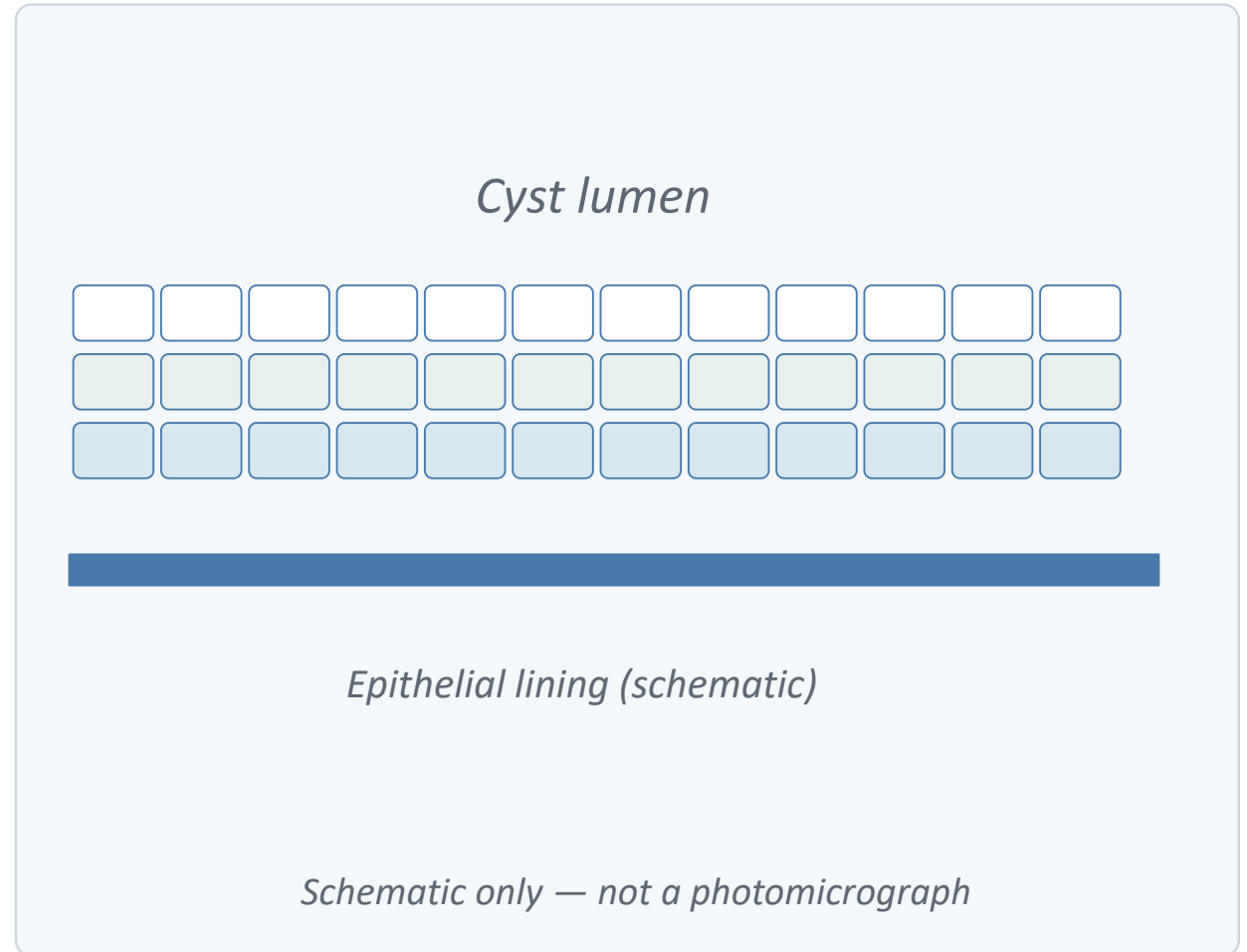
- The lesion may cause localized discomfort or pain.
- Symptoms signal clinical effect.

What morphology tells us

- A lining identifies the duct cystic space.
- Purulent inflammation identifies abscess formation.

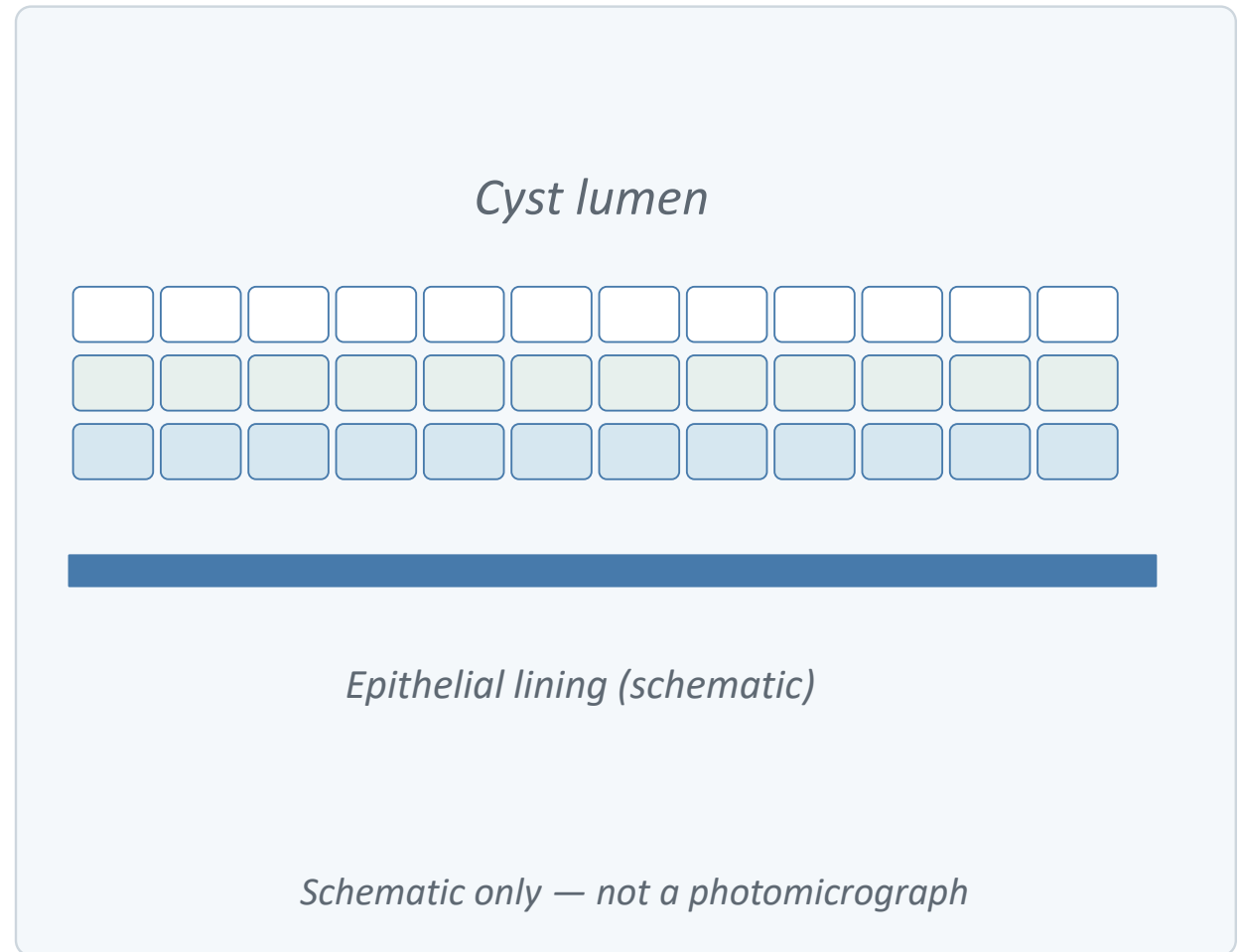
Duct cysts have an epithelial lining

- The duct cyst lining is commonly transitional or squamous epithelium.
- This cellular boundary distinguishes the cyst compartment from surrounding stroma.
- The drawing is a simplified epithelial pattern, not microphotography.



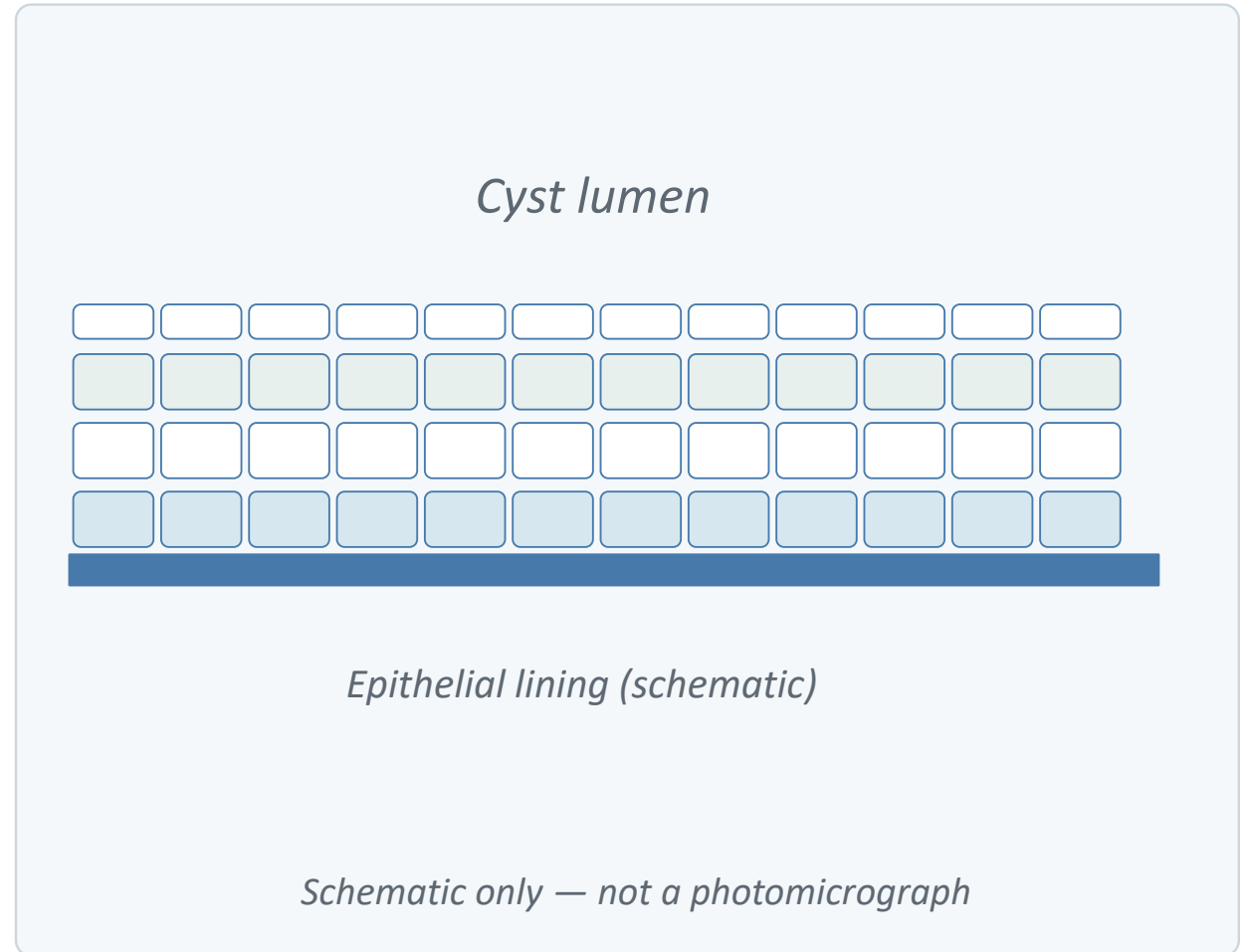
Transitional epithelium is a reported lining

- Transitional epithelium among typical duct cyst linings.
- Identification of epithelial type is a microscopic descriptor.
- Its presence does not establish a microbial cause.



Squamous epithelium is also a reported lining

- A squamous lining is another common microscopic pattern.
- The finding is consistent with the epithelium described for these cysts.
- Microscopic recognition and clinical symptoms provide complementary information.



Both epithelial patterns are permitted

Transitional lining

- One epithelial type.
- A valid lining of a Bartholin duct cyst.

Squamous lining

- A second epithelial type.
- Its presence does not by itself imply a neoplasm.

Cyst lining and abscess content occupy different compartments

- Cyst: Epithelial lining bounds the cystic cavity.
- Abscess: Pus accumulates in a localized tissue space.
- The lesion can be interpreted by compartment and material, not label alone.

Epithelial-lined cyst

Localized purulent focus

Different diagnostic compartments

Original schematic — not clinical imagery

The inflammatory reaction has recognizable tissue elements

Vessels

Vascular dilation accompanies acute inflammation.

Leukocytes

Leukocytes accumulate outside vessels.

Edema

Extravascular fluid contributes to swelling.

A cystic space is not sufficient to prove an abscess

Cyst morphology

- Epithelial lining around a duct-related cavity.
- Its presence follows luminal obstruction.

Abscess morphology

- A localized pus-filled compartment.
- Neutrophils and liquefied debris are key components.

An epidermal inclusion cyst is a separate vulvar cyst

Bartholin duct cyst

- A ductal lesion related to inflammatory obstruction.
- Usually transitional or squamous lining.

Epidermal inclusion cyst

- One of the common skin cyst types that may occur on the vulva.
- The Bartholin subsection does not supply its detailed histology.

Dermatoses form another differential category

Psoriasis

Psoriasis may involve the vulvar skin.

Eczema

Eczema is another inflammatory cutaneous process.

Dermatitis

Allergic dermatitis can occur in the same region.

Leukoplakia denotes a surface plaque

Duct cyst concept

- A cystic duct-associated lesion.
- Clinically important when enlarged or uncomfortable.

Leukoplakia concept

- Opaque, white, plaque-like epithelial thickening.
- The term describes an appearance, not one diagnosis.

Vulvar neoplasia is a different diagnostic category

Squamous cell

Squamous cell carcinoma can occur on the vulva.

Basal cell

Basal cell carcinoma is also listed among vulvar skin tumors.

Melanoma

Melanoma is another possible vulvar skin tumor.

A vulvar lesion should be classified by its process

- Obstructive: A duct-related cystic process.
- Inflammatory: Adenitis or a purulent abscess.
- Epithelial / neoplastic: Cutaneous plaques or tumors in the wider differential.

Obstructive cyst

Inflammation / abscess

Other epithelial lesions / tumors

Original schematic — not clinical imagery

Use mechanism, lining and inflammatory pattern together

Obstructive mechanism



Lining morphology



Suppuration status

- Identify whether a duct obstruction is implicated.
- Evaluate whether a lining is present and which type.
- Identify any acute suppuration or localized pus collection.

Two surgical approaches

Excision

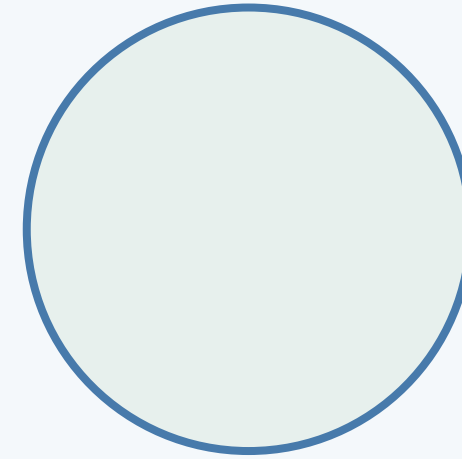
- The Bartholin duct cyst can be removed surgically.
- The lesion itself is the target of removal.

Marsupialization

- The cyst is opened permanently.
- The opening is intended to remain patent.

Excision removes the cyst

- Excision is explicitly listed as a management option.
- The approach removes the cystic lesion rather than maintaining it as an open cavity.
- The cited paragraph does not provide indications or recurrence rates.

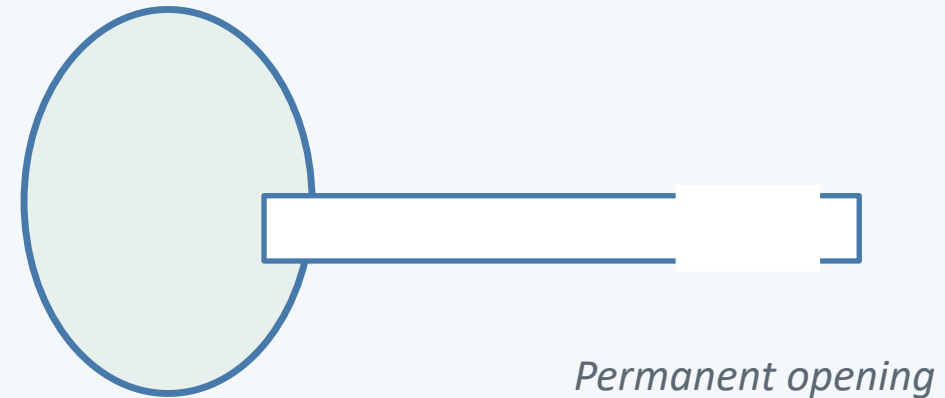


Removal of cystic lesion

Original schematic — not clinical imagery

Marsupialization creates a lasting opening

- Marsupialization as opening the cyst permanently.
- The key pathological target is persistent obstruction of the drainage passage.
- The figure illustrates the principle, not surgical technique.



Schematic — gland and duct; Not a specimen

Both options address the pathological cyst

Obstructed cyst



**Excision OR
marsupialization**



Cyst addressed

- A cyst forms because the duct becomes obstructed.
- The textbook offers excision or permanent opening.
- No comparative effectiveness estimates are supplied.

Treatment statements have important boundaries

- The topic paragraph does not provide a full clinical treatment algorithm.
- No antibiotic regimen, biopsy threshold or recurrence rate is specified.
- Do not manufacture management criteria from a short pathology description.
- The purpose here is to explain the pathology underlying the options named.

Case 1 — enlarged duct-associated lesion

- A patient has a Bartholin duct-associated cystic lesion producing discomfort.
- The specimen contains a cystic cavity with squamous epithelial lining.
- Question: Which mechanism best explains the lesion?

Discussion follows on the next slide

Case 1 — obstruction explains the lesion

**Inflammatory
obstruction**



Squamous-lined cyst



Local discomfort

- A squamous lining is consistent with a Bartholin duct cyst.
- An enlarged cyst can account for local discomfort.
- The source mechanism is inflammation-associated duct obstruction.

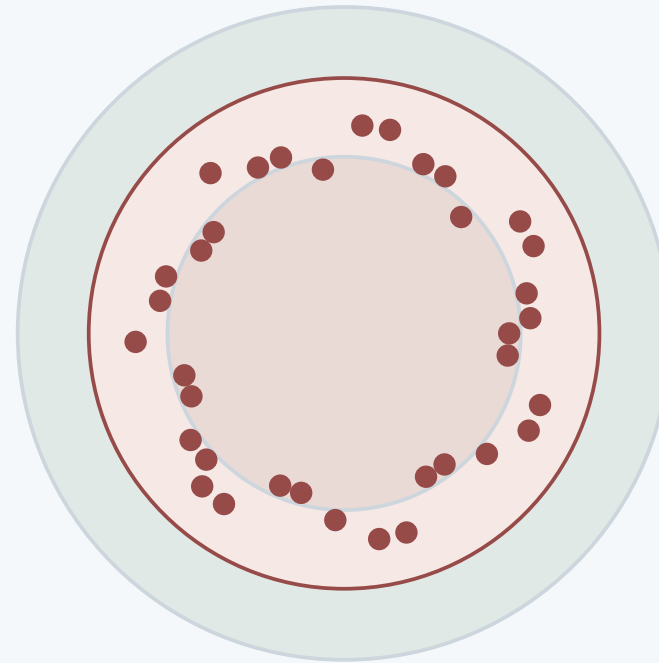
Case 2 — acutely inflamed gland

- A Bartholin gland becomes infected and acutely inflamed.
- A localized collection of neutrophils and liquefied debris develops.
- Question: What complication does this morphology establish?

Discussion follows on the next slide

Case 2 — localized pus establishes an abscess

- Infection can produce Bartholin adenitis.
- The localized pus collection establishes the abscess component.
- The underlying cystic history cannot be inferred from pus alone.



Abscess zones — schematic, not histology

Case 3 — a different vulvar lesion

- A vulvar lesion is described as an opaque white surface plaque.
- No cystic cavity has been identified.
- Question: Is “Bartholin duct cyst” the best description of this pattern?

Discussion follows on the next slide

Case 3 — surface plaque differs from duct cyst

Leukoplakia

- White, plaque-like epithelial thickening.
- A descriptor with multiple possible causes.

Bartholin cyst

- A duct-associated cyst from obstruction.
- Usually a squamous- or transitional-lined cavity.

Integrated diagnostic exercise

- A lesion contains an epithelial-lined cavity and a separate focus of pus.
- A mixed anaerobic/facultative bacterial infection is possible.
- Question: Which findings support the cyst, abscess and infection interpretations?

Discussion follows on the next slide

Integrated answer — do not collapse the categories

Cyst

Epithelial lining supports a duct cystic space.

Abscess

Localized neutrophil-rich pus supports abscess formation.

Etiology

Organisms are possible etiologies, not derivable from lining type.

Pathology synthesis

- The core cyst mechanism is inflammation-induced duct obstruction.
- Infection can separately produce acute adenitis and abscess.
- Epithelial lining, suppuration and symptoms are complementary descriptors.

Inflammatory duct obstruction



Epithelial-lined duct cyst

Infection → adenitis / abscess

Original schematic — not clinical imagery

Selected reference sources

- Robbins, Cotran & Kumar. Pathologic Basis of Disease. 11th ed. (2026).
- Primary sections: Bartholin Cyst and Vulva.
- Adjacent section: Pelvic Inflammatory Disease.
- General pathology: Purulent (Suppurative) Inflammation and Abscess.
- Infectious-disease context: Abscesses.