



ACIBADEM
SISTINA



Glandular lesions of the uterine cervix

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The 2014 BETHESDA SYSTEM FOR REPORTING CERVICAL CYTOLOGY - *INTERPRETATION/RESULT*

- **NEGATIVE FOR INTRAEPITHELIAL LESION OR MALIGNANCY**
- **NON-NEOPLASTIC FINDINGS** (*optional to report optional to report; list not inclusive*)
 - *Tubal metaplasia*
 - *Pregnancy-associated changes*
 - *Intrauterine contraceptive device (IUD)*
 - *Glandular cells status post hysterectomy*

OTHER

- Endometrial cells (*in a woman ≥ 45 years of age*)

EPITHELIAL CELL ABNORMALITIES

GLANDULAR CELL

- **Atypical** endocervical cells (**NOS** or *specify in comments*); **endometrial cells** (**NOS** or *specify in comments*); glandular cells (**NOS** or *specify in comments*)
- **Atypical endocervical cells!**, **favor neoplastic**; glandular cells, favor neoplastic
- Endocervical **adenocarcinoma in situ**
- **Adenocarcinoma**: endocervical; **endometrial**; extrauterine; not otherwise specified (**NOS**)

Tubal metaplasia (TM)

- Single ciliated cells in isolation are not sufficient for the designation.
- Mitoses may be present.
- Can be *misinterpreted as endocervical atypia or neoplasia* (tendency toward enlarged nuclei, crowded nuclei, and nuclear stratification).
- Terminal bars and cilia establish a benign interpretation.



Fig. 2.21 Tubal metaplasia (CP). Ciliated columnar endocervical cells. A goblet cell is seen at the center with its nucleus closer to the top of the image (arrow)

TM may coexist with endocervical neoplasia, and hence its presence should not dissuade an atypical or neoplastic designation if other types of atypical cells are present in the same specimen.

Pregnancy-related changes

Arias-Stella Reaction

Criteria

Glandular cells, singly or in clusters.

Cytoplasm is of variable quantity and may be vacuolated.

Nuclear to cytoplasmic ratio variable, but often high.

Nuclei are large, hyperchromatic with contour irregularities (grooves and pseudoinclusions), and granular to smudgy chromatin.

Multiple prominent nucleoli.

Background is usually inflammatory, often with leukophagocytosis.

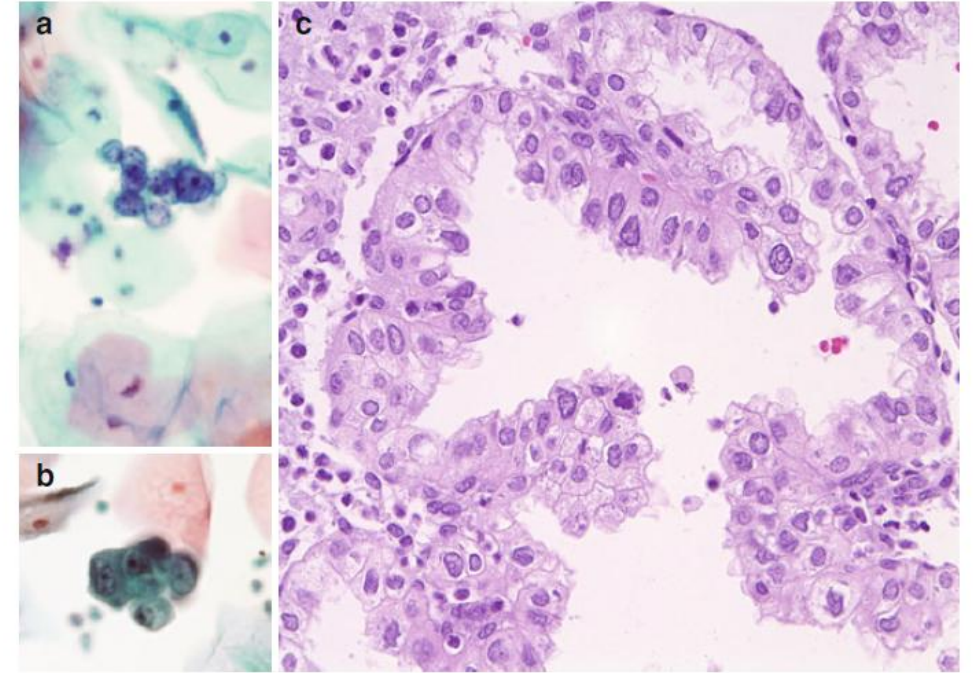


Fig. 2.30 Pregnancy-related cellular changes, Arias-Stella reaction. The upper and lower left images (a, b, *LBP, SurePath*) show groups of stimulated endometrial glandular epithelium that could be mistaken for a glandular epithelial abnormality. The histology (c, *right*, H&E) demonstrates the exuberant variation in epithelial nuclear morphology due to hormonal stimulation during pregnancy

It is important to be aware of the patient's pregnant or postpartum status to avoid overinterpretation of these findings.

Endometrial cells in women ≥ 45 years of age

- Cervical cytology is primarily a screening test *for squamous lesions*; it should not be used to evaluate suspected endometrial abnormalities.
- **Atypical** endometrial cells should still be reported under the general category “epithelial cell abnormality” and managed as such.
- Cells are small and often arranged in tight, ball-like clusters, rarely as isolated cells
- Nuclei are small, similar in area to a normal intermediate squamous cell nucleus.

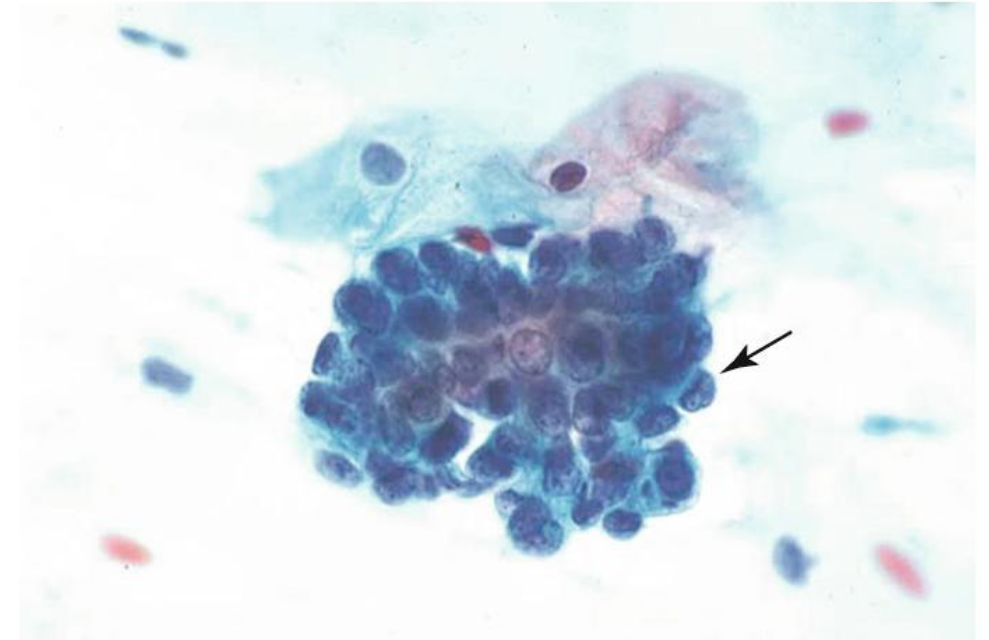
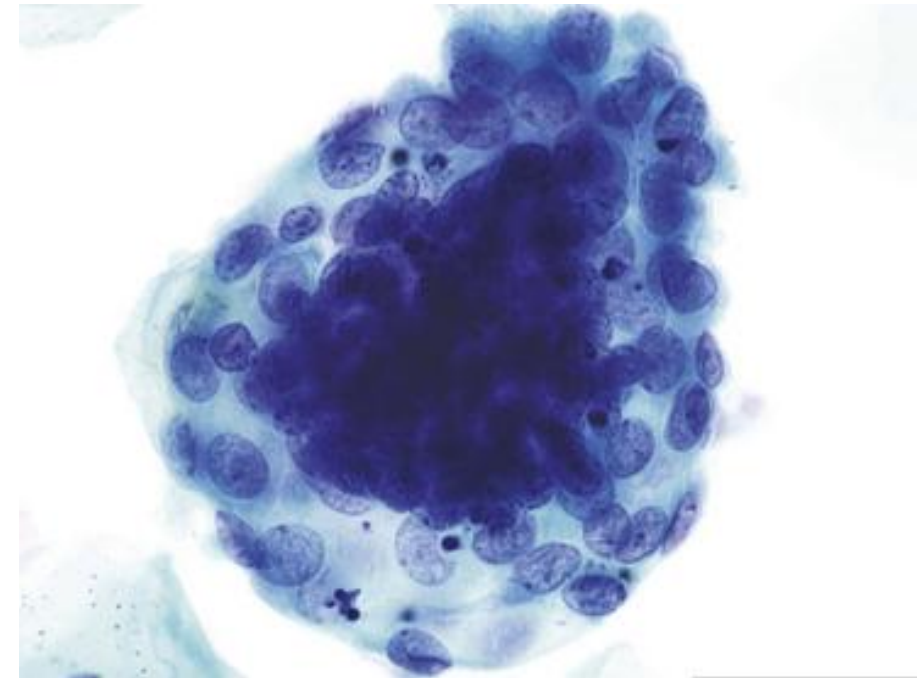


Fig. 3.1 Exfoliated endometrial cells (*conventional preparation, CP*). Cells are arranged in three-dimensional clusters. Nuclei are small and similar in size to an intermediate squamous cell nucleus. Nucleoli are inconspicuous. Cytoplasm is scant, and cell borders are indistinct

Endometrial cells in women ≥ 45 years of age

- Exfoliated endometrial cells are normally present 1 - 12 day of the menstrual cycle, with the specific pattern of “exodus” noted from 6-10 day.
- The term “exodus” is used for a distinctive arrangement of benign, spontaneously exfoliated endometrial stromal and glandular cells that are arranged in three-dimensional, double-contoured groups, with central small, dark stromal cells rimmed by larger, paler glandular cells.



Exodus endometrial cells. From: <https://basicmedicalkey.com/vulva-vagina-and-cervix-normal-cytology-hormonal-and-inflammatory-conditions/>

Endometrial cells in women ≥ 45 years of age

- Abraded – as opposed to exfoliated – endometrium and lower uterine segment (LUS) fragments are not associated with an increased risk of endometrial cancer and therefore do not generally warrant reporting (after cervical excision procedures LEEP/ LLETZ, cone biopsy, trachelectomy).

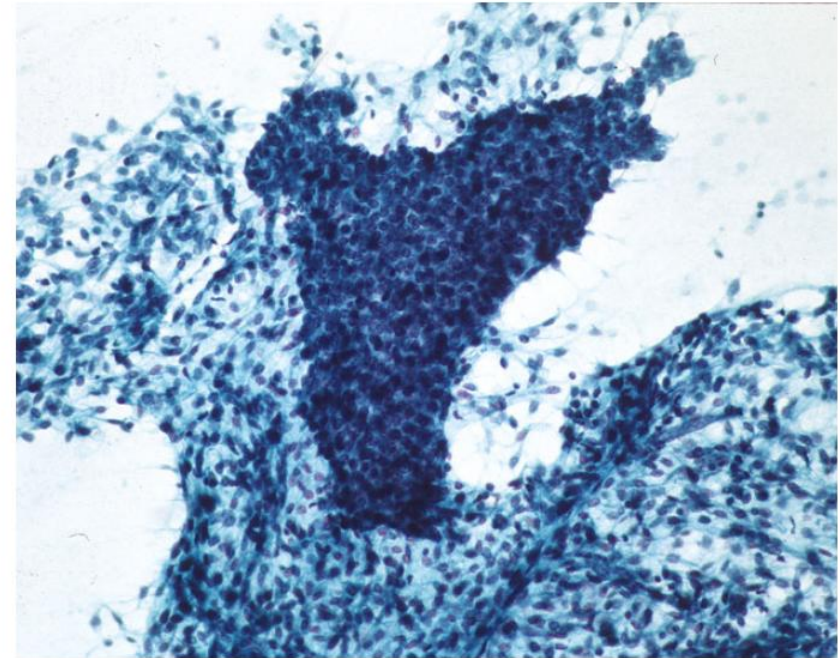


Fig. 3.5 Abraded lower uterine segment (LUS) fragment (CP). A large fragment of epithelium is associated with vascular stroma composed of tightly packed spindle-shaped cells. Abraded LUS/endometrium does not carry the same implications as exfoliated endometrial cells

Benign-appearing endometrial cells in a woman with endometrial neoplasia likely represent the endometrial stromal and glandular breakdown that is commonly associated with neoplasia.

Atypical glandular cells

- The interpretation of “**atypical glandular cells**” defines an increased level of risk, as opposed to a specific neoplastic precursor entity.
- The term “**atypical glandular cells of undetermined significance**” is NOT utilized in ~~order to avoid confusion with the terminology for squamous cell abnormalities~~.
- Atypical glandular cells should be categorized as to the favored site of origin (endocervical or endometrial) whenever possible; otherwise, the generic “atypical glandular cells” (AGC) terminology is used.

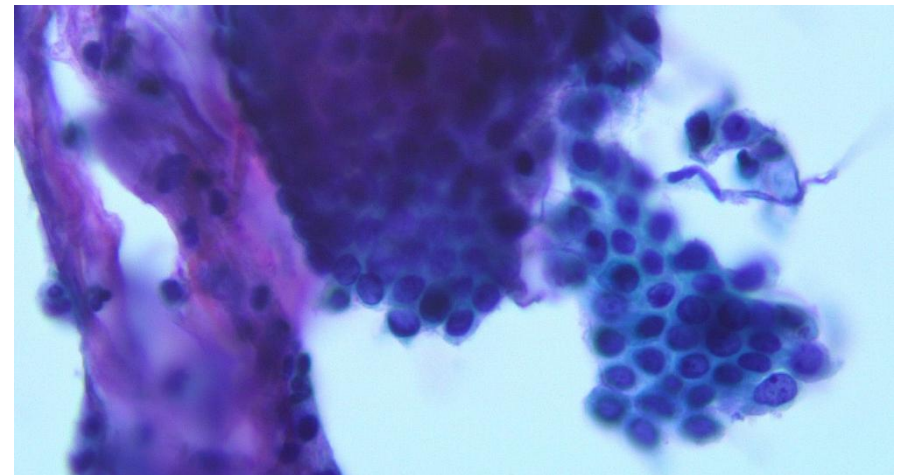
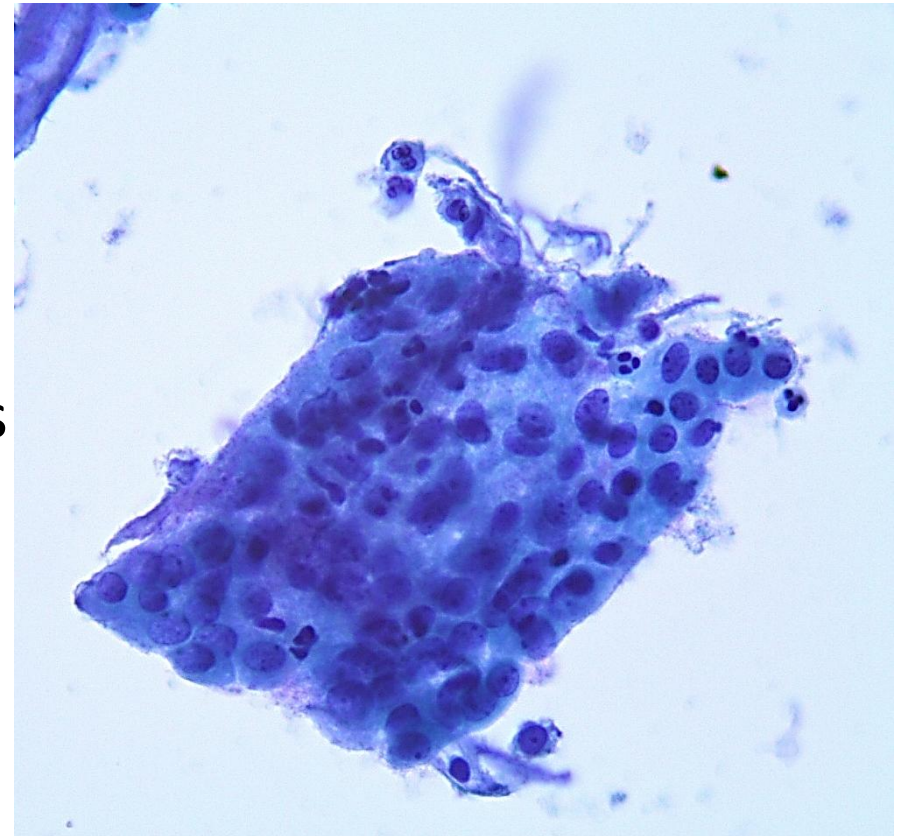
Atypical glandular cells

- **ONLY** “Atypical endocervical cells” and “atypical glandular cells” may be further qualified as “favor neoplastic.”
- *“Atypical endometrial cells” are NOT further qualified as to “NOS” or favor neoplasia,” reflecting the difficulty in reliable further subclassification of this category.*
- The qualifier “~~favor reactive~~” is considered to be potentially misleading and, therefore, is not included in the Bethesda terminology.

Atypical Endocervical Cells: NOS

Criteria

- Cells occur in sheets and strips with some cell crowding, nuclear overlap, and/or pseudostratification.
- Nuclear enlargement, up to three to five times the area of normal endocervical nuclei.
- Some variation in nuclear size and shape.
- Mild nuclear hyperchromasia.
- Mild degrees of chromatin irregularity.
- Occasional nucleoli.
- Mitotic figures are rare.
- Cytoplasm may be fairly abundant, but the nuclear to cytoplasmic ratio is increased.
- Distinct cell borders are often discernible.



Atypical Endocervical Cells, Favor Neoplastic

- Cell morphology, either quantitatively or qualitatively, falls just short of an interpretation of endocervical adenocarcinoma in situ or invasive adenocarcinoma.

Criteria

- Abnormal cells occur in sheets and strips with nuclear crowding, overlap, and/or pseudostratification.
- Rare cell groups with *rosettes (gland formations) or feathering*.
- Nuclei are enlarged and often elongated with some hyperchromasia.
- *Coarse chromatin with heterogeneity.*
- *Occasional mitoses and/or apoptotic debris.*
- Nuclear to cytoplasmic ratios are increased.
- *Cell borders may be ill-defined.*

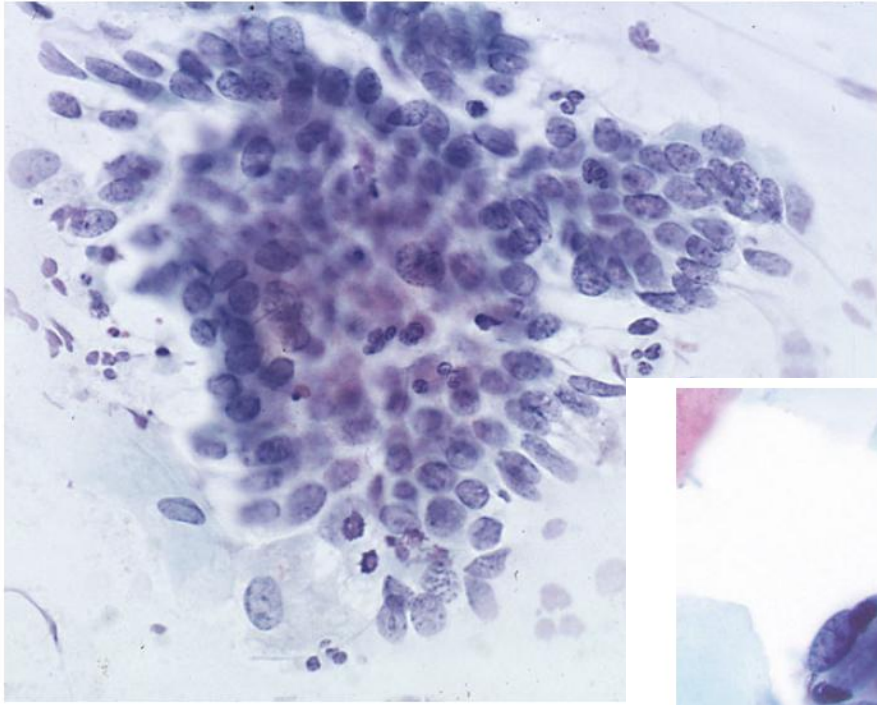
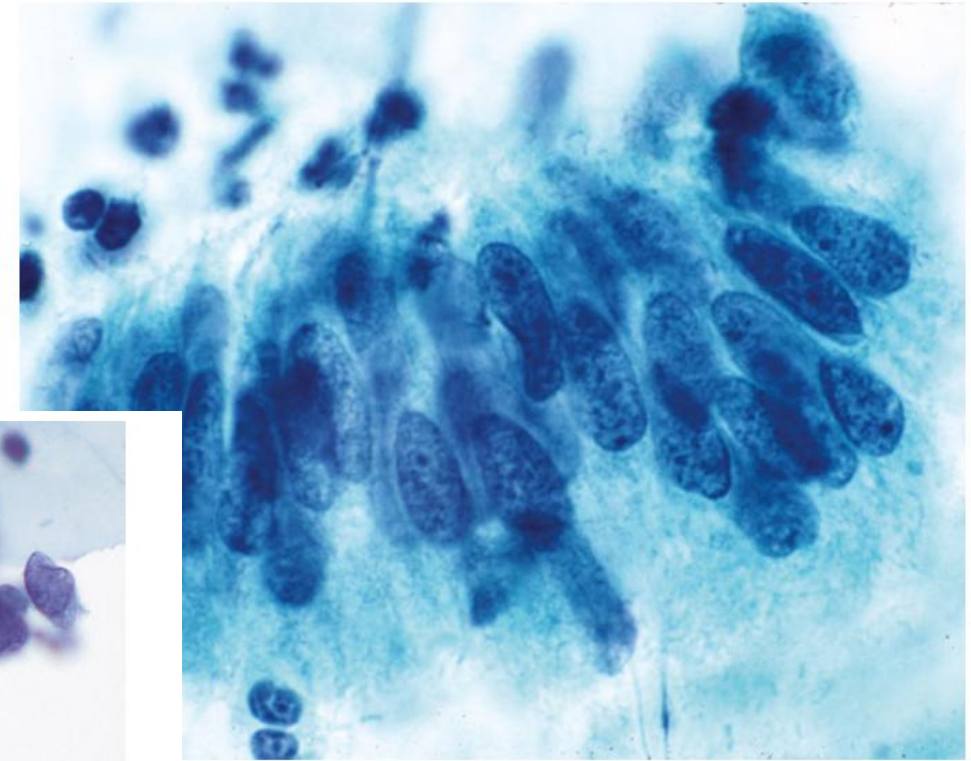


Fig. 6.9 Atypical endocervical cells, favor neoplastic (*CP*). Rout woman. Sheet of crowded cells with increased N/C ratios and mitoses at the edges of the sheet. Follow-up showed endocervical AIS



endocervical cells, favor neoplastic (*CP*). Pseudostratified strip of endocervical cells, elongated nuclei and evenly distributed chromatin granularity

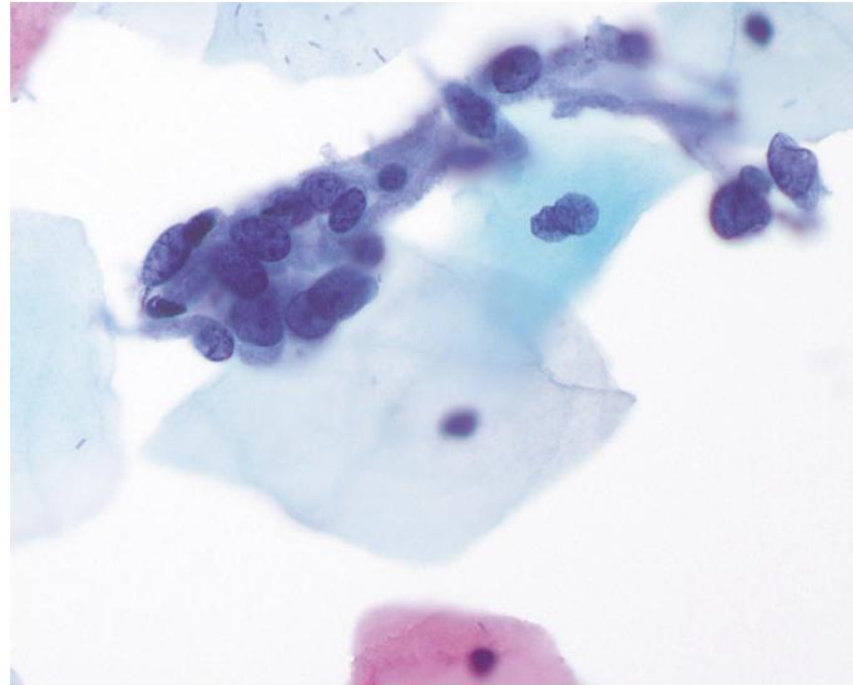


Fig. 6.11 Atypical endocervical cells, favor neoplastic (*LBP, ThinPrep*). Atypical endocervical cells characterized by round or oval nuclei with nuclear enlargement, crowding, disordered arrangement, and occasional nucleoli. A rosette-like cellular arrangement is present. Follow-up showed endocervical AIS

MIMICS OF GLANDULAR NEOPLASIA

- Reactive endocervical cells are characterized by the presence of a *honeycomb or sheetlike arrangement* with abundant cytoplasm, well-defined cell borders, and *minimal nuclear overlap*.
- Some degree of pleomorphism of cell size and nuclear enlargement may be noted; however, the *nuclei remain round or oval with smooth contours and finely granular and evenly distributed chromatin*.
- Nucleoli may be prominent, and multinucleation can occur, especially in cases of repair and inflammation. Cytoplasmic mucin may be diminished, giving the cell cluster a more hyperchromatic appearance. *This constellation of reactive changes should be considered as “negative for intraepithelial lesion or malignancy” and not included in the AGC category.*

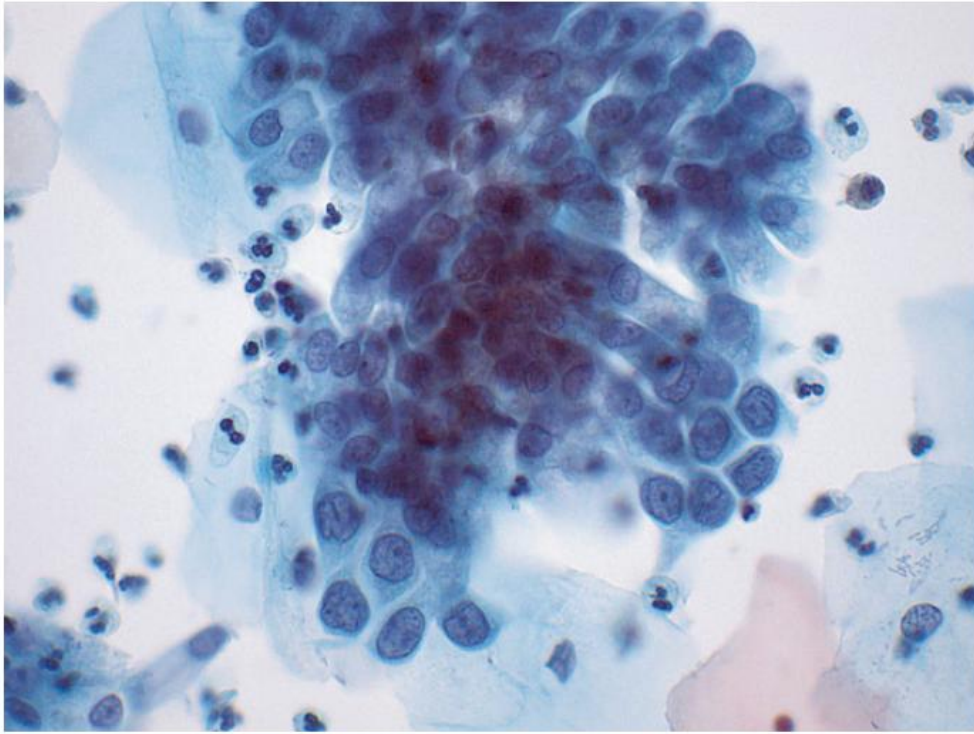


Fig. 6.8 Normal endocervical cell “brush effect” (*LBP, SurePath*). Pictured is one of many such groups present on this slide, resulting from vigorous sampling with an endocervical “broom” device. The endocervical cells show uniform, evenly distributed, finely granular chromatin, and well-defined cytoplasmic boundaries consistent with a benign etiology

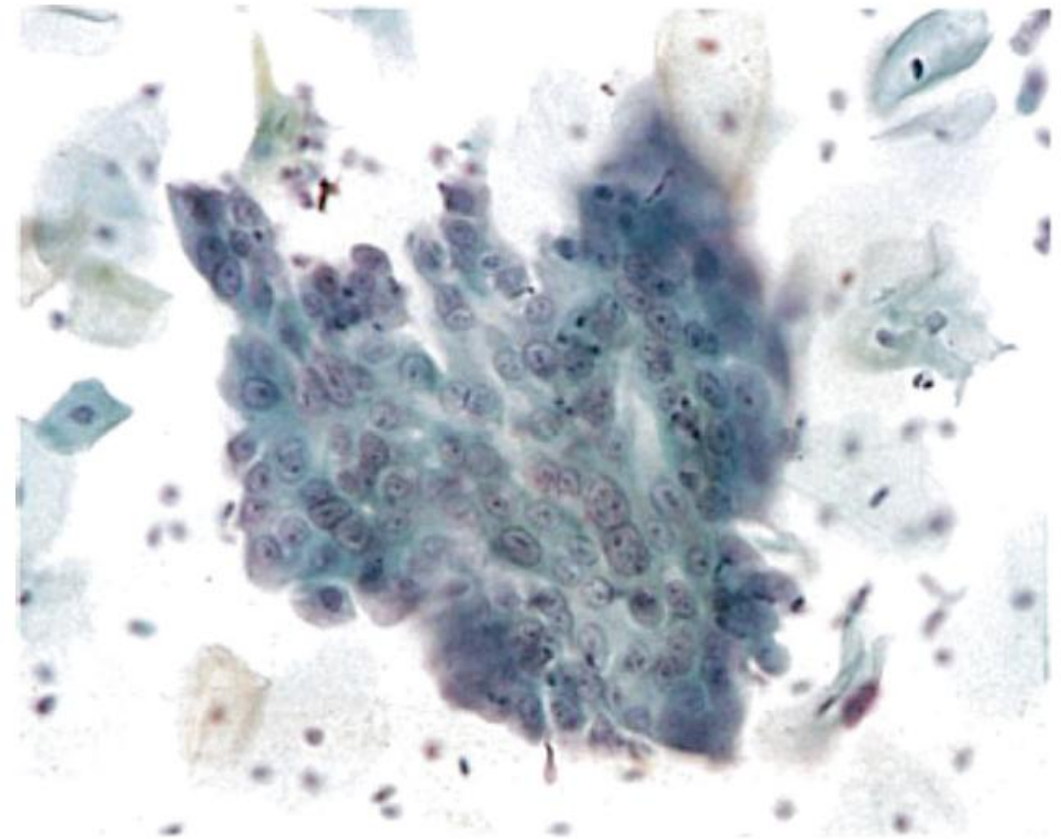


Fig. 2.32 Reactive-reparative cellular changes: reactive endocervical cells (*LBP, SurePath*). Thirty-two-year-old woman. Variation in nuclear size, prominent nucleoli, and rare intracytoplasmic polymorphonuclear leukocytes are seen; these features are consistent with endocervical repair. Follow-up cytology was NILM

Atypical endometrial cells

- The distinction of cytologically benign from atypical endometrial cells is based **PRIMARILY** on the criterion of *increased nuclear size*.
- Atypical endometrial cells are generally not further qualified, specific comments can be appended if clinical findings/history is available (e.g., presence of IUD, polyp).
- **Criteria**
 - Cells occur in small groups, usually 5–10 cells per group
 - *Nuclei are slightly enlarged compared to normal endometrial cells.*
 - *Mild hyperchromasia.*
 - *Chromatin heterogeneity.*
 - Occasional small nucleoli
 - Scant cytoplasm is occasionally vacuolated.
 - Cell borders are ill defined.

Atypical endometrial cells

- Endometrial/endocervical cells derived from post-trachelectomy specimens may elicit an atypical glandular cell interpretation, especially when the history is not known.
- Helpful features include the presence of tubular glandular structures closely associated with bipolar endometrial stromal cells. In the absence of stromal cells, the geometric shape of the glandular clusters without feathering along the periphery is a helpful feature which is appreciated on low magnification.
- *Residual liquid-based cytology specimens can be used to make cell blocks* to help resolve the origin of atypical glandular cells, including mimics, such as menstrual or directly sampled endometrium, and tubal metaplasia.
- Hematoxylin and eosin- stained sections and immunocytochemical stains, such as p16, may clarify the nature of densely crowded cell groups.

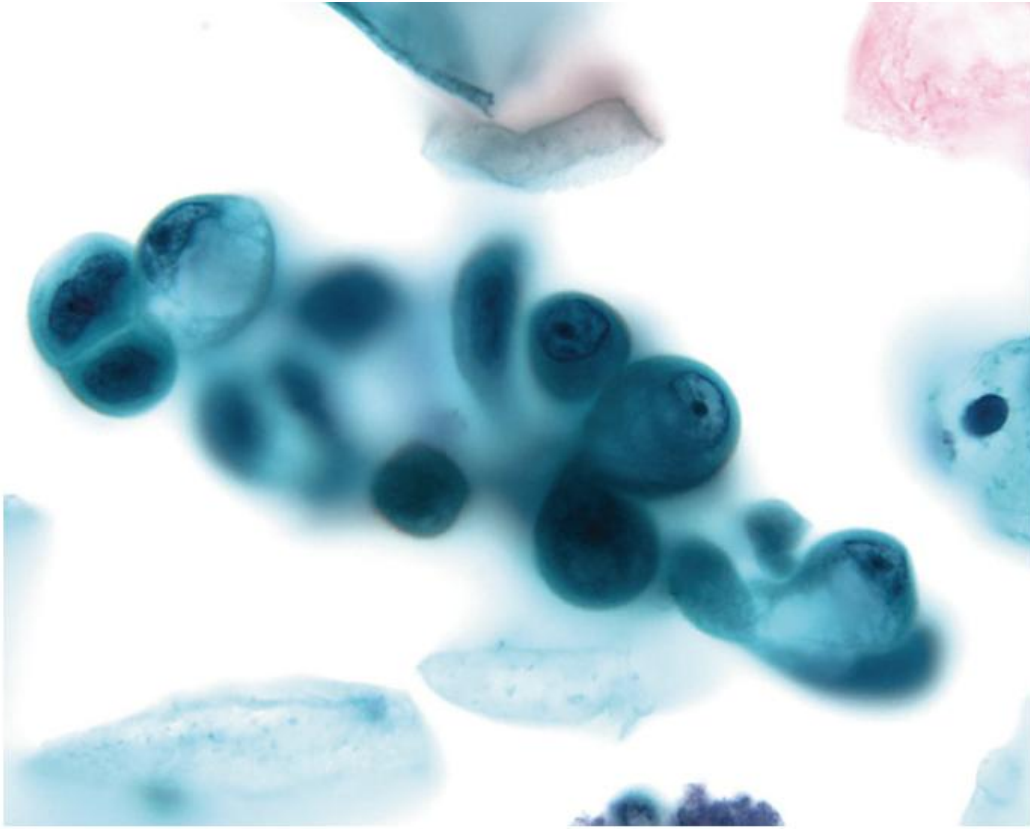


Fig. 6.5 Reactive glandular cells associated with IUD (*LBP, SurePath*). A 45-year-old woman with an intrauterine device (IUD). The presumed endocervical cells demonstrate nuclear enlargement, nucleoli, and cytoplasmic vacuolization, consistent with changes associated with presence of an IUD. In the absence of a clinical history of IUD, such changes may be reported as atypical glandular cells, NOS

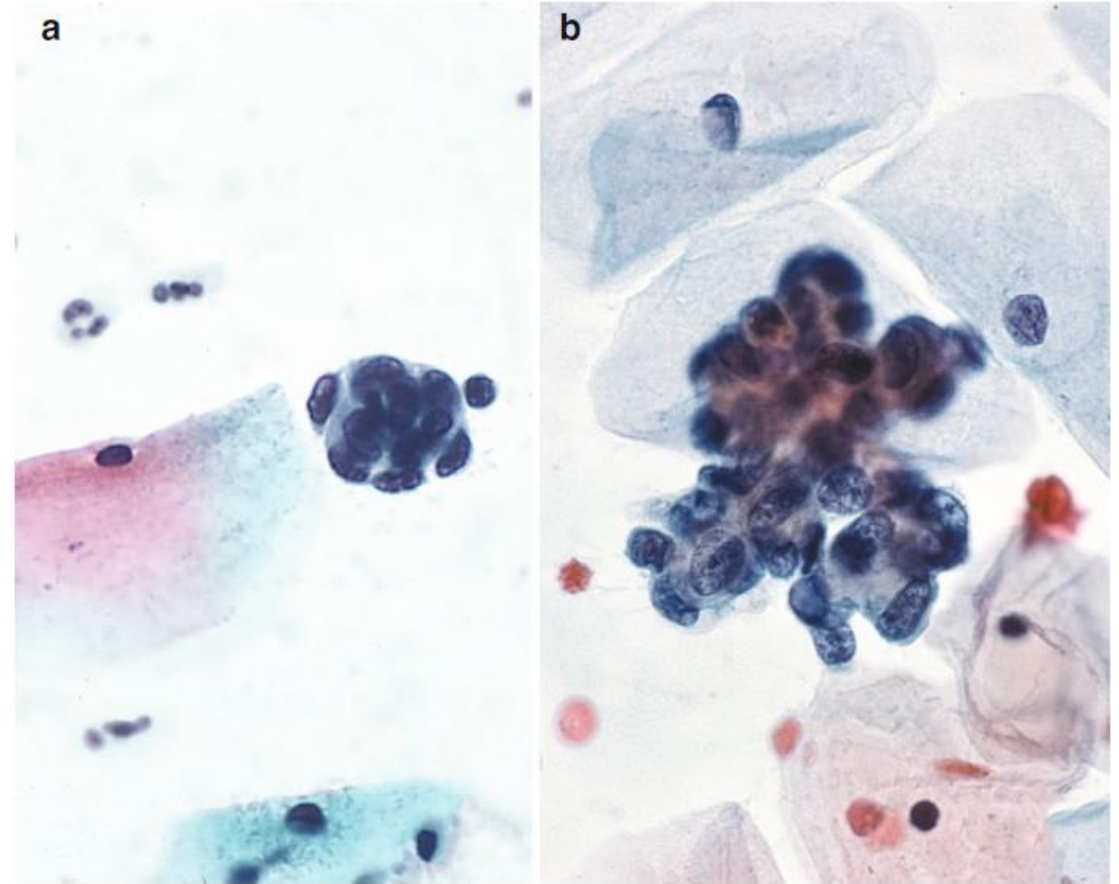
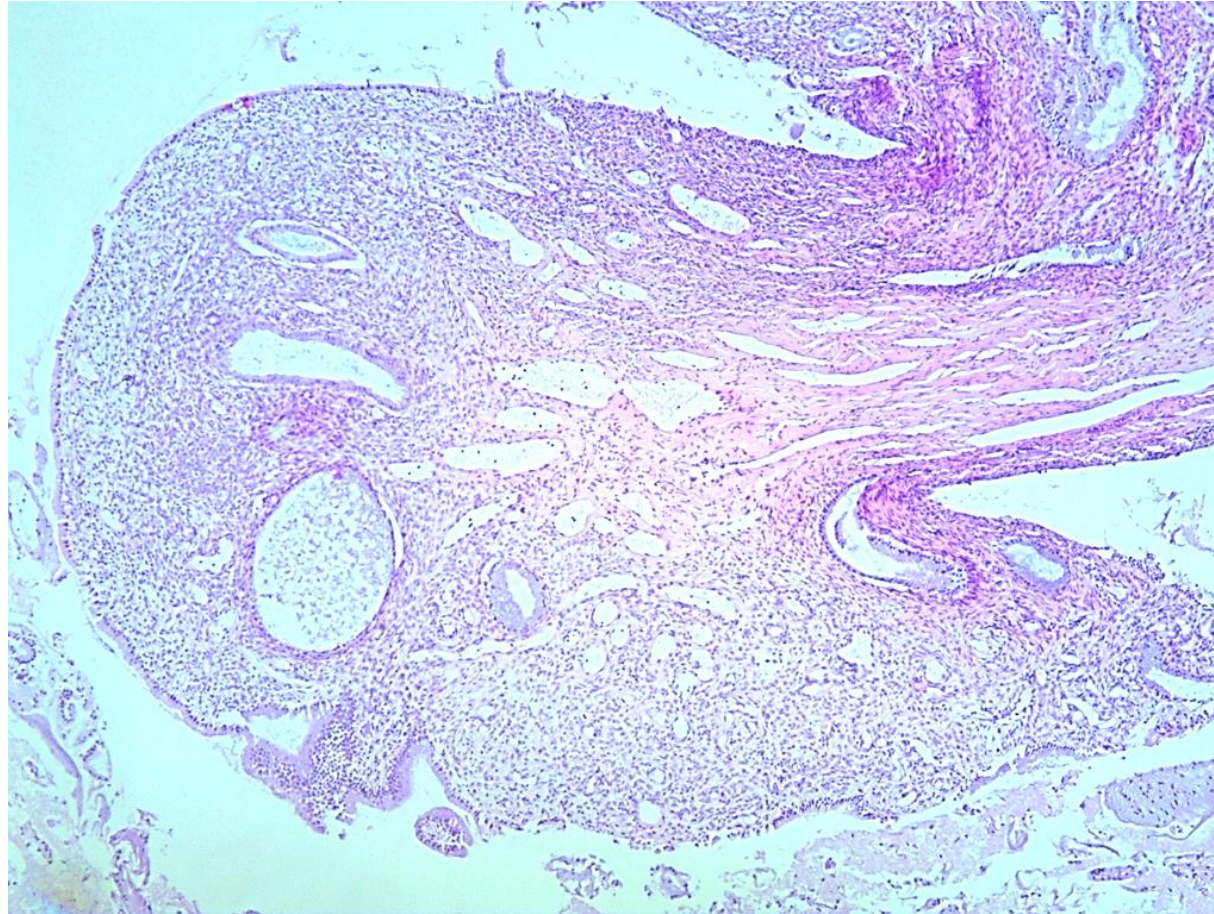


Fig. 6.15 Atypical endometrial cells (*CP*). An 82-year-old woman with postmenopausal bleeding. Three-dimensional groups of small cells with mildly hyperchromatic nuclei, small nucleoli, and occasionally vacuolated cytoplasm. (a) shows a very tight cluster, while (b) shows a more loosely aggregated group. Follow-up showed endometrial hyperplasia

Cell block with cervical polyp



Management of AGC (The 2019 consensus guidelines from the American Society for Colposcopy and Cervical Pathology (ASCCP))

- Initial management of all categories of AGC, except atypical endometrial cells is *colposcopy with endocervical sampling*.
- Women *35 years and older* or at risk for endometrial neoplasia should *also have endometrial sampling*.
- *Triage using repeat cytology is NOT an option for the AGC category as it is high risk*, and may harbor significant squamous and glandular preinvasive and invasive disease.
- If invasive disease is not identified on initial evaluation, a ***diagnostic excisional procedure*** is recommended for women with a cytologic interpretation of atypical glandular or endocervical cells, favor neoplasia or endocervical adenocarcinoma in situ.

The 2019 ASCCP guidelines do not recommend hrHPV triage for initial presentations of AGC.

Endocervical Adenocarcinoma In Situ (AIS)

- A noninvasive high-grade endocervical glandular lesion that is characterized by nuclear enlargement, hyperchromasia, chromatin abnormality, pseudostratification, and mitotic activity.

Criteria

- Cells occur in sheets, clusters, pseudostratified strips, and rosettes with nuclear crowding and overlap and loss of a well-defined honeycomb pattern.
- Some cells show a definite columnar appearance.
- Cell clusters have a palisading nuclear arrangement with nuclei and cytoplasmic tags protruding from the periphery (*“feathering”*).
- *Nuclei are enlarged, variably sized, and oval or elongated.*
- *Nuclear hyperchromasia with evenly dispersed, coarsely granular chromatin.*
- Nucleoli are usually small or inconspicuous.
- *Mitoses and apoptotic bodies are common.*
- Nuclear to cytoplasmic ratios are increased; the quantity of cytoplasm, as well as cytoplasmic mucin, is diminished.
- Background is typically clean (no tumor diathesis, although inflammatory debris may be present).
- Abnormal squamous cells may be present if there is a coexisting squamous lesion.

The cytologic interpretation of endocervical adenocarcinoma in situ should only be made in cases where sufficient criteria are present. In problematic cases, the interpretation of “atypical endocervical/glandular cells, favor neoplastic” is justified.

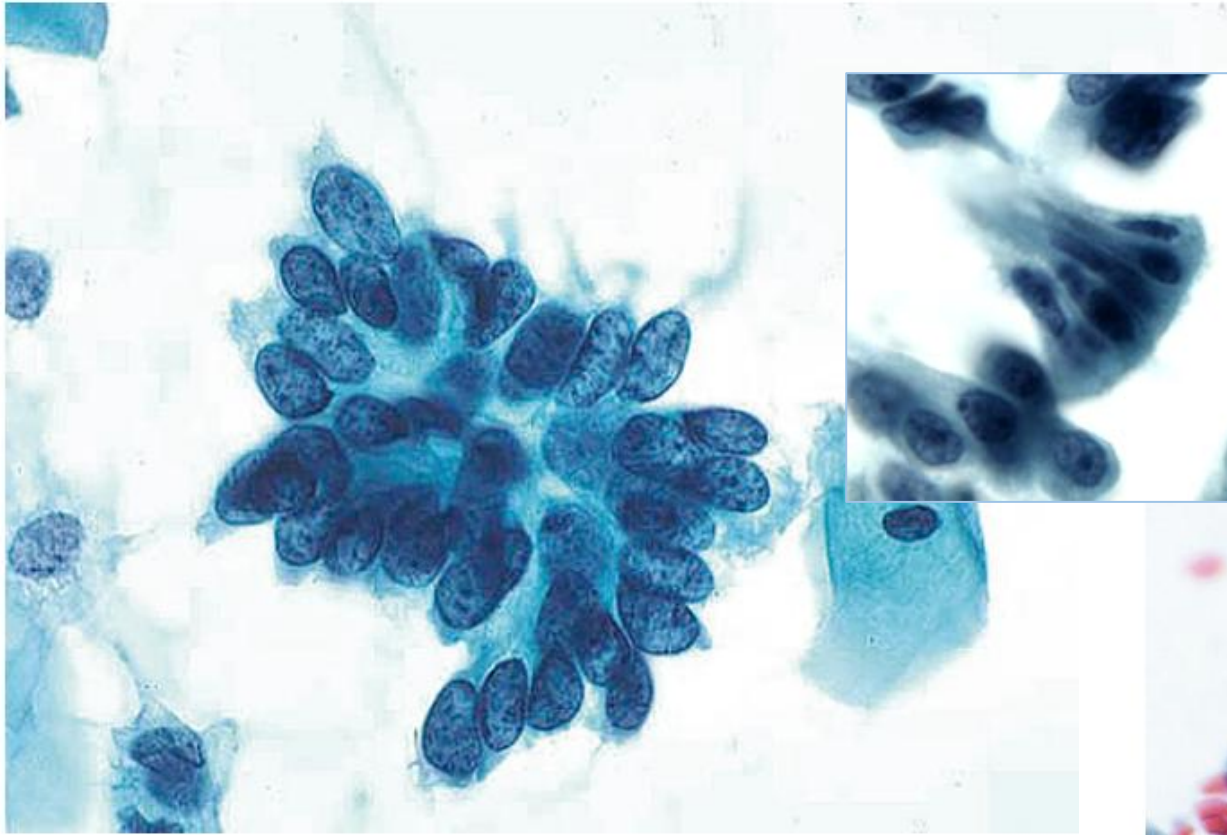


Fig. 6.23 Endocervical adenocarcinoma in situ (CP). The typically oval nuclei are crowded, overlapping, and show hyperchromasia with evenly distributed but coarse chromatin. Note the prominent gland-like configuration (rosette)

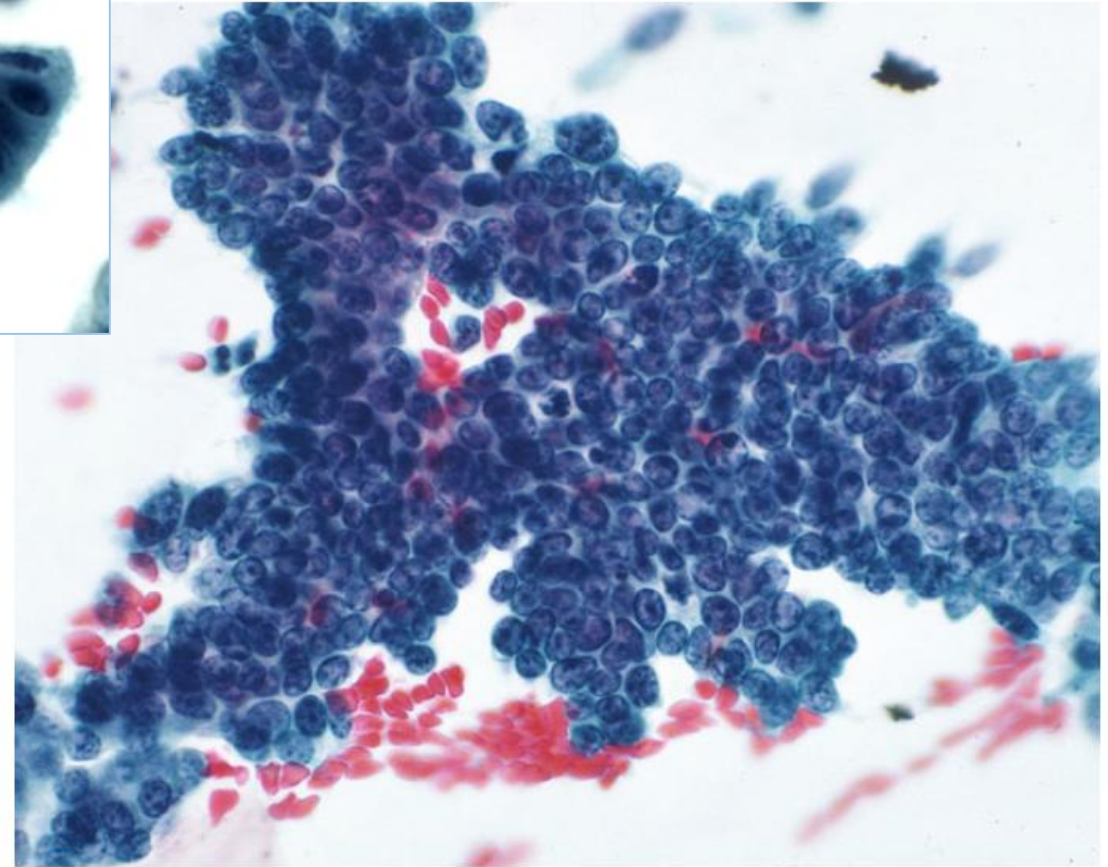


Fig. 6.21 Endocervical adenocarcinoma in situ (CP). Sheet of crowded cells with enlarged, hyperchromatic nuclei, increased nuclear to cytoplasmic ratios, and feathering at the periphery of the sheet. Note the monotony of the hyperchromatic nuclei as contrasted with the more variable nuclear changes in tubal metaplasia (see Figs. 6.12 and 6.14 for comparison)

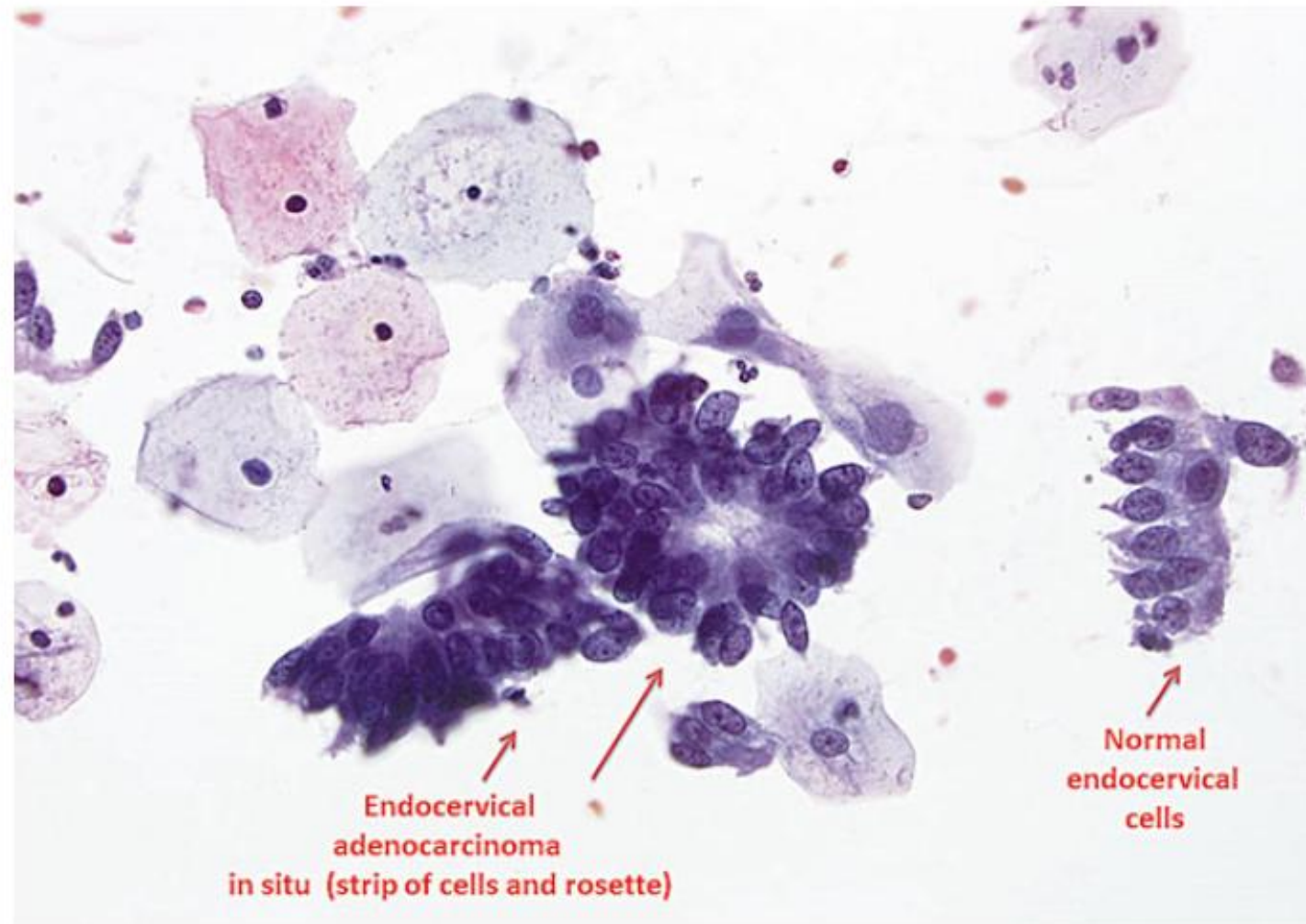


Fig. 6.30 Benign and neoplastic endocervical cells (*LBP, ThinPrep*). The group on the *right side* of the image shows a strip of normal endocervical cells with low nuclear to cytoplasmic ratios and lack of overlapping contrasted with the groups on the *left side* of the image which show strips and rosettes of AIS with high nuclear to cytoplasmic ratios, nuclear hyperchromasia, crowding, feathering and overlapping

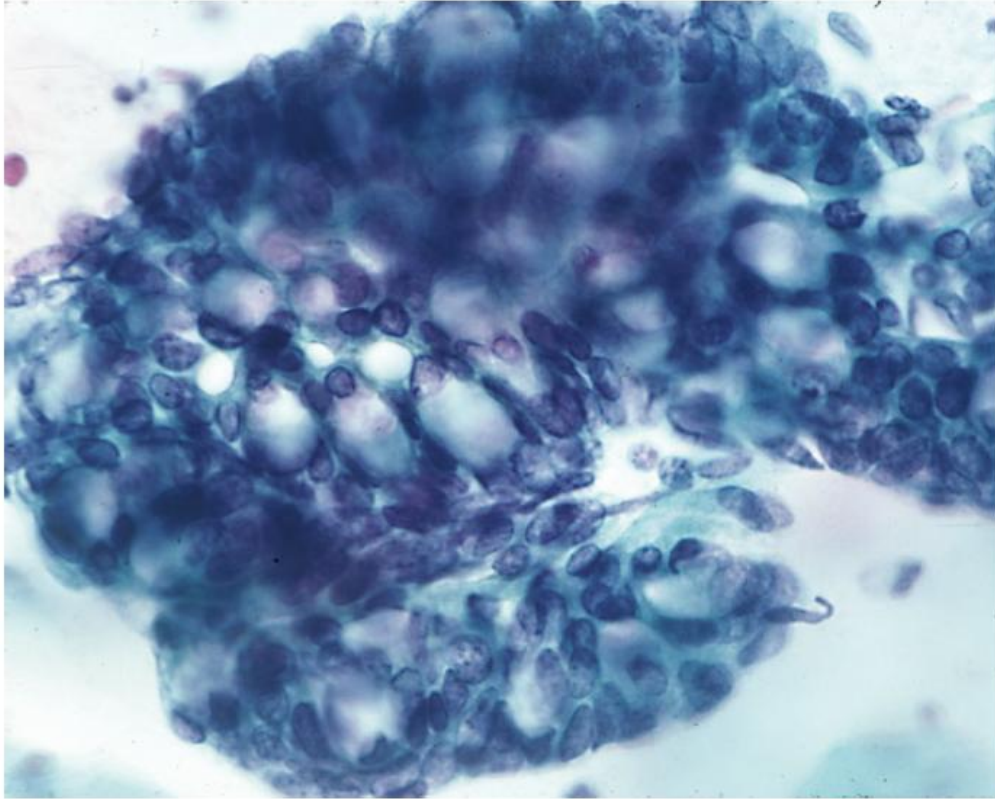


Fig. 6.31 Endocervical adenocarcinoma in situ, intestinal type (*CP*). Cells show nuclear crowding and overlap and have elongated nuclei. Note numerous goblet-type cells

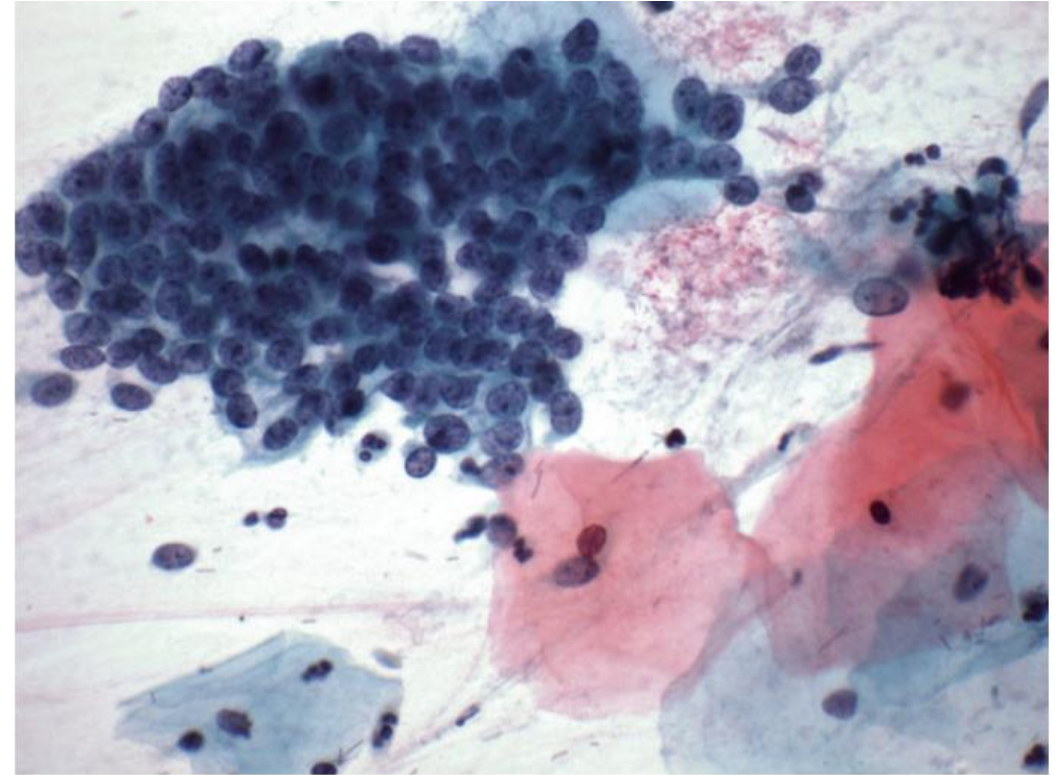
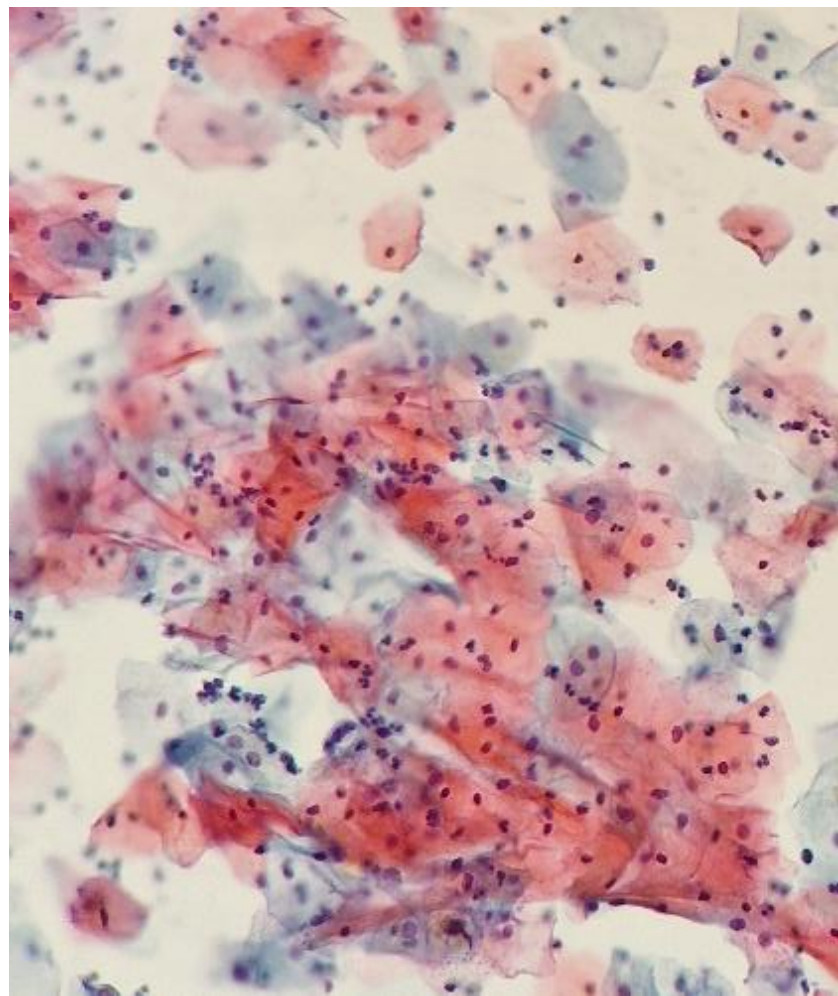
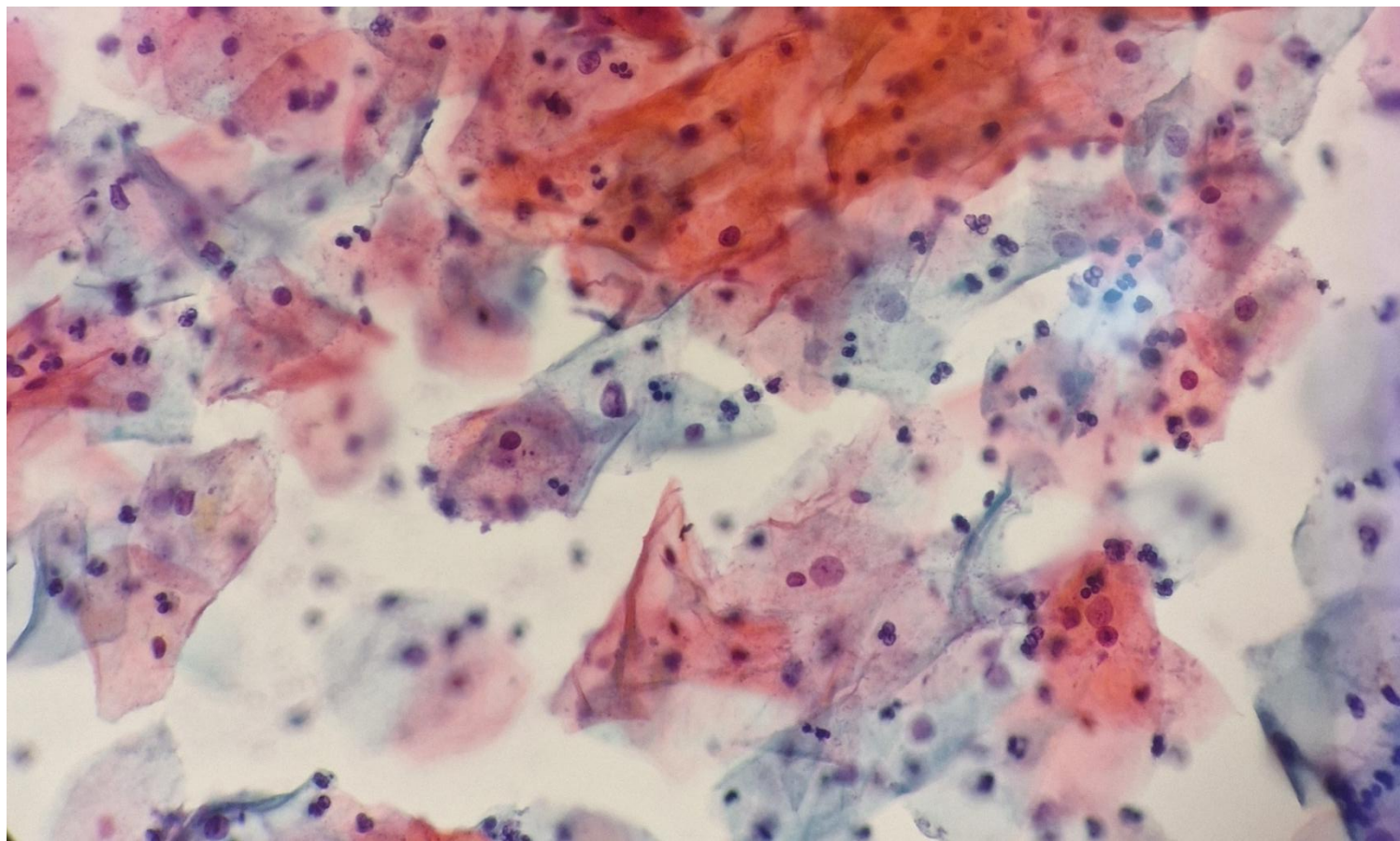


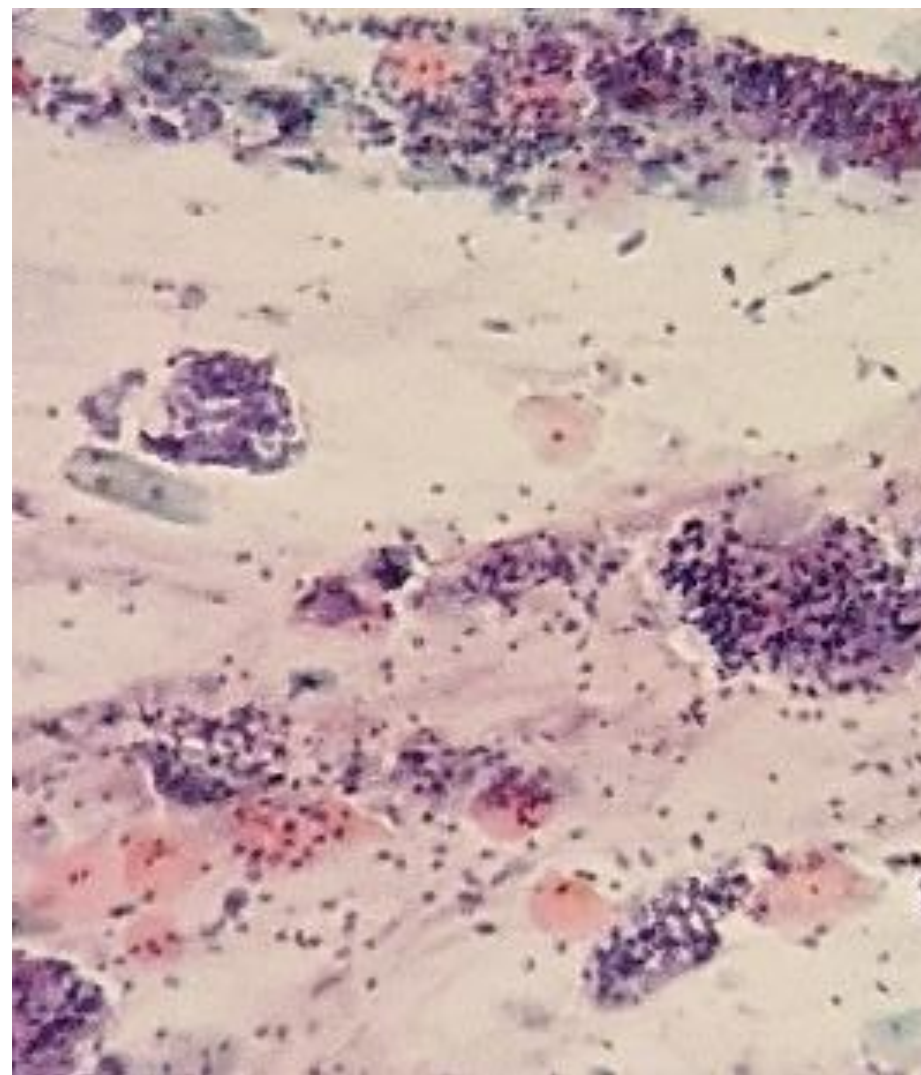
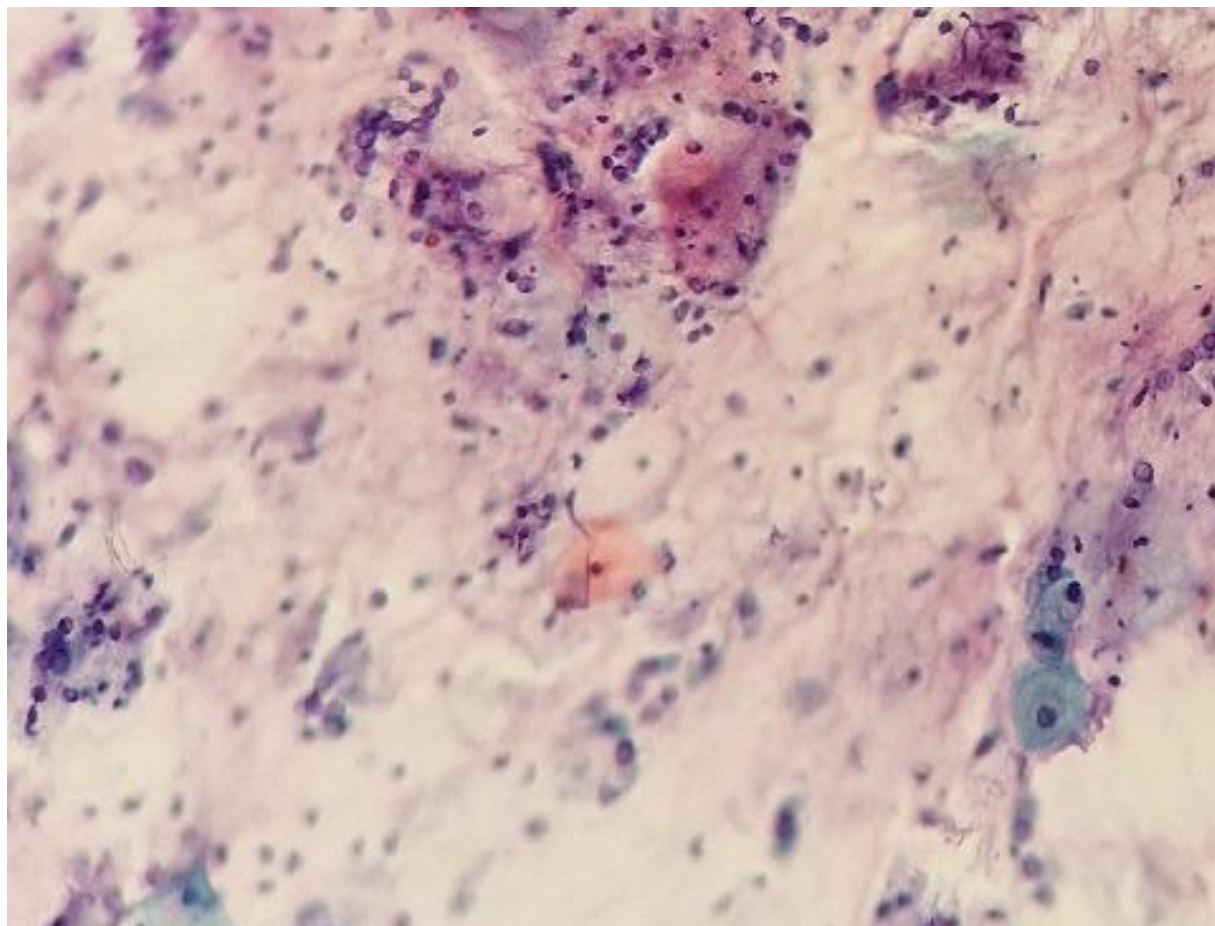
Fig. 6.32 Endocervical adenocarcinoma in situ, endometrioid variant (*CP*). Endometrioid AIS has similar features to the usual type of AIS but shows much smaller average nuclear area (compare to intermediate cell nucleus in the image). Because of this size difference, endometrioid AIS can be mistaken for directly sampled benign endometrium. Attention to overall architecture and lack of stromal cells can be helpful in differentiation

CASE A

- 33-years-old female
- 2023-NILM
- 2025-

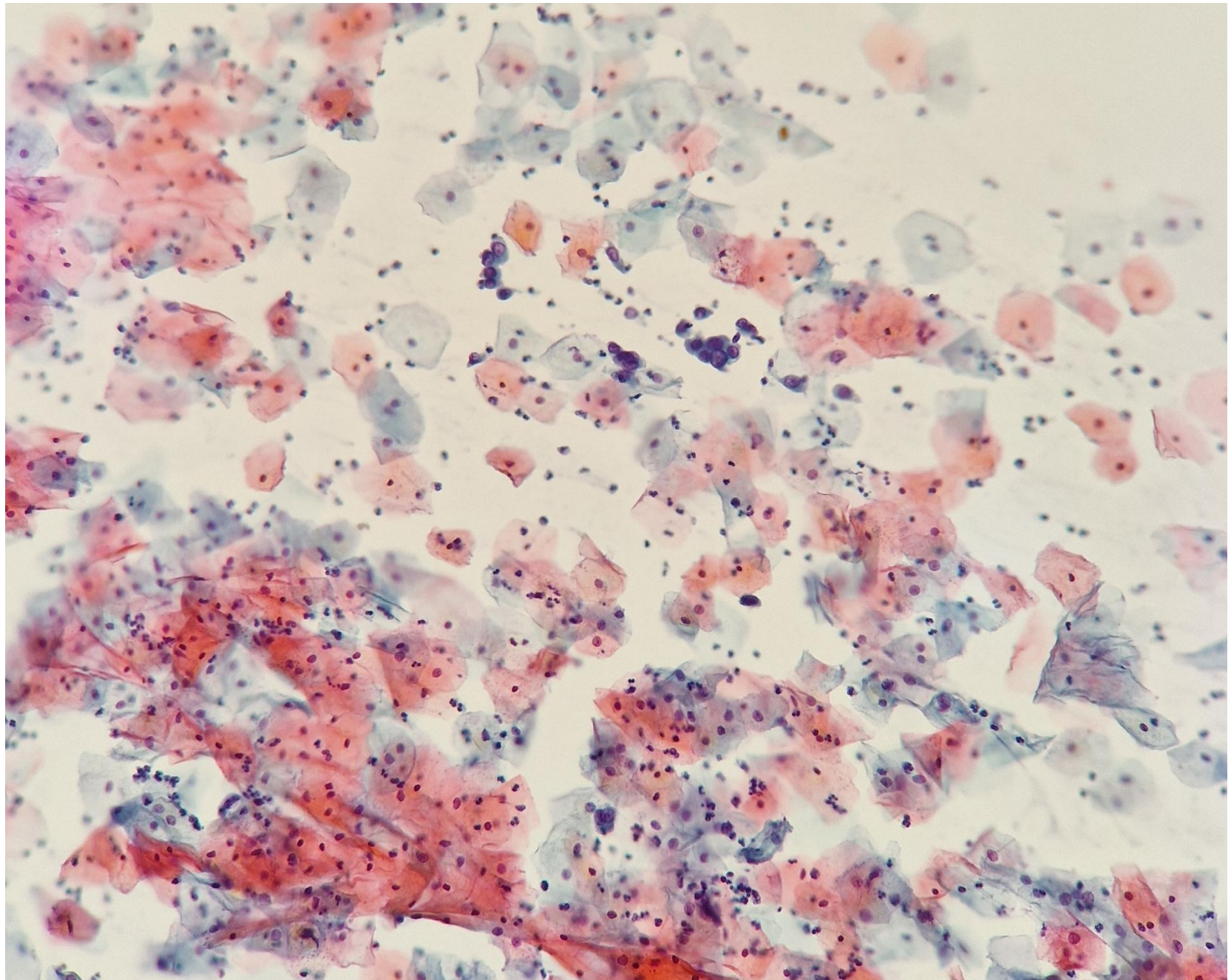


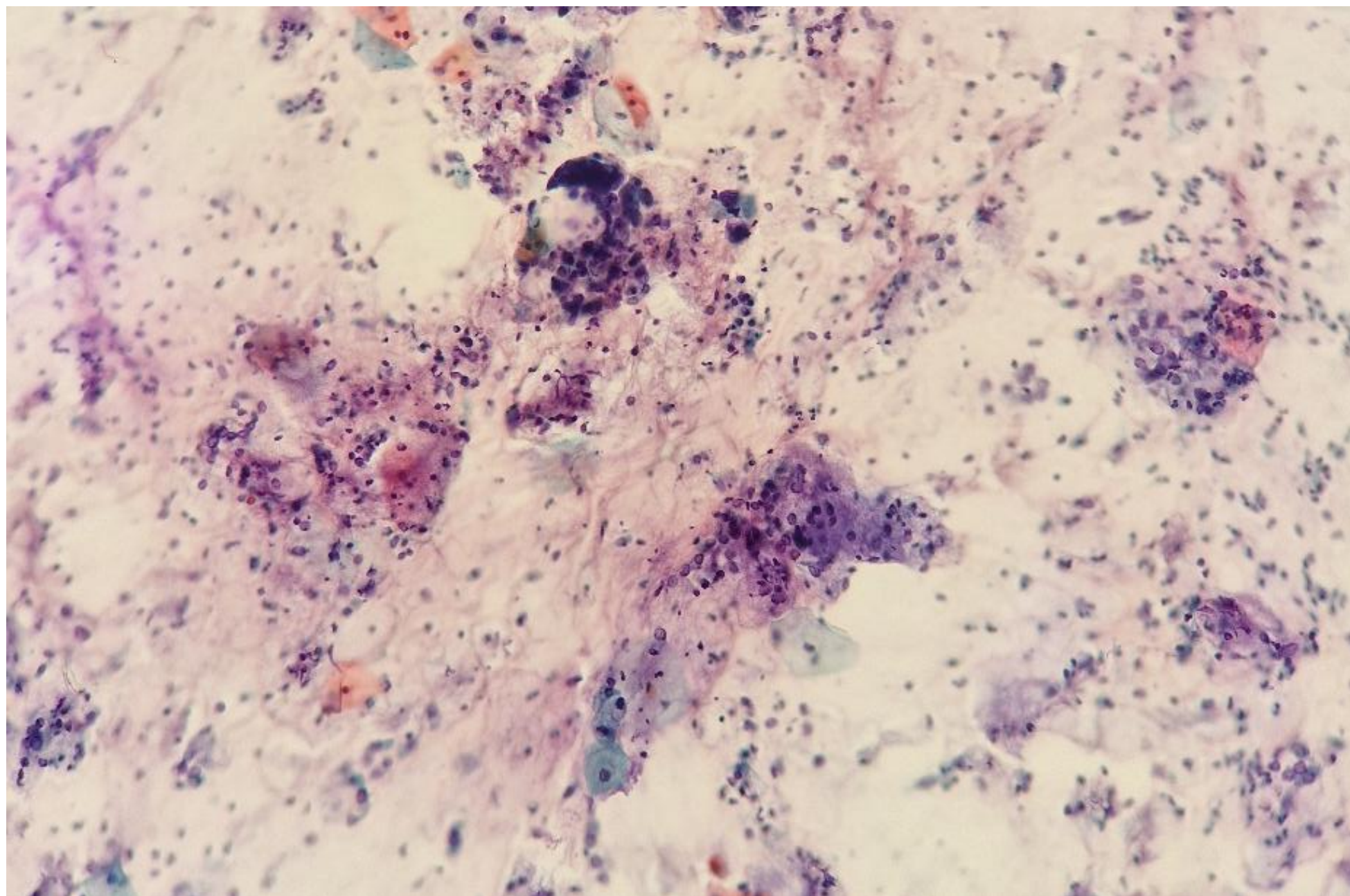
LSIL

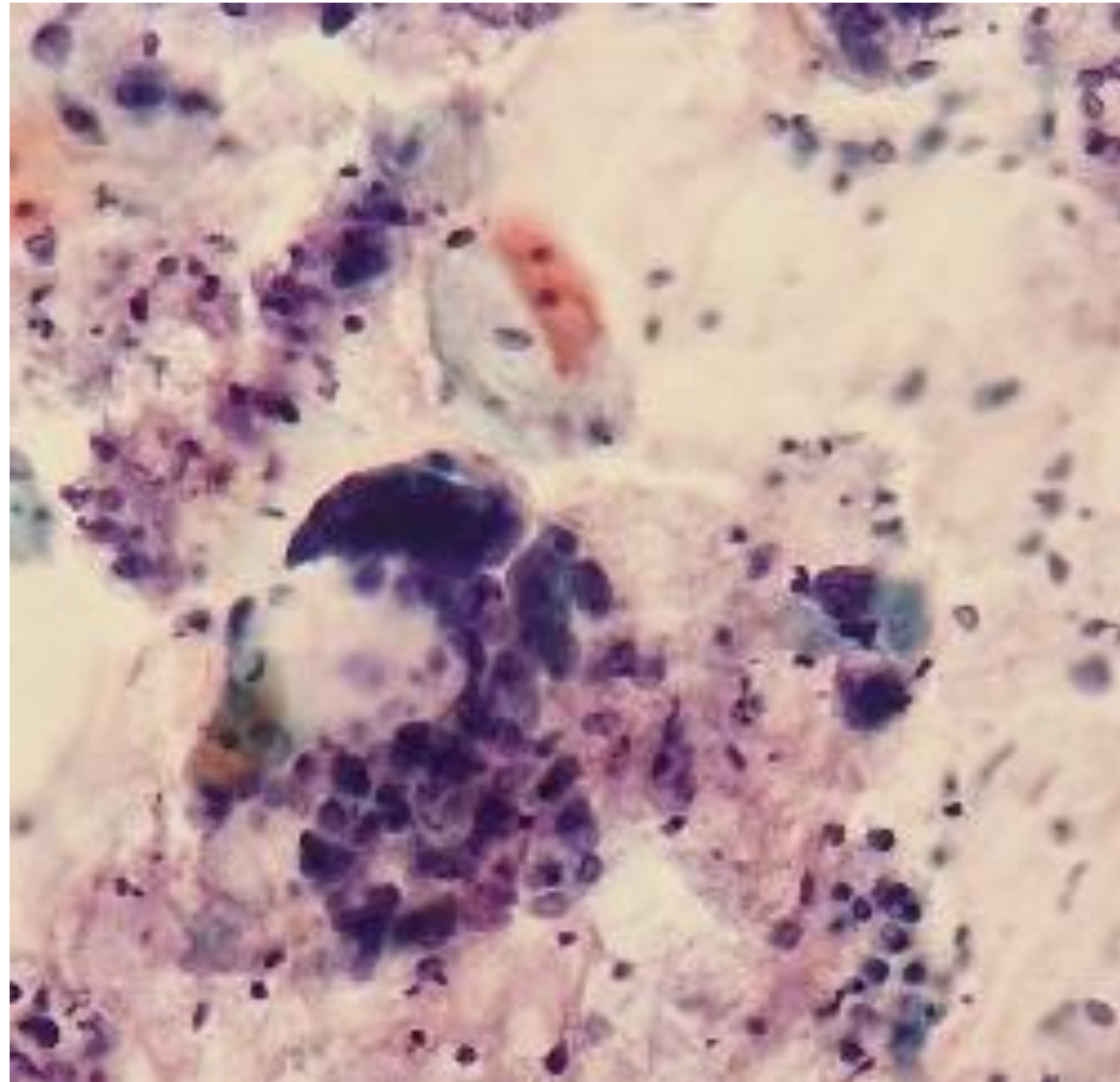


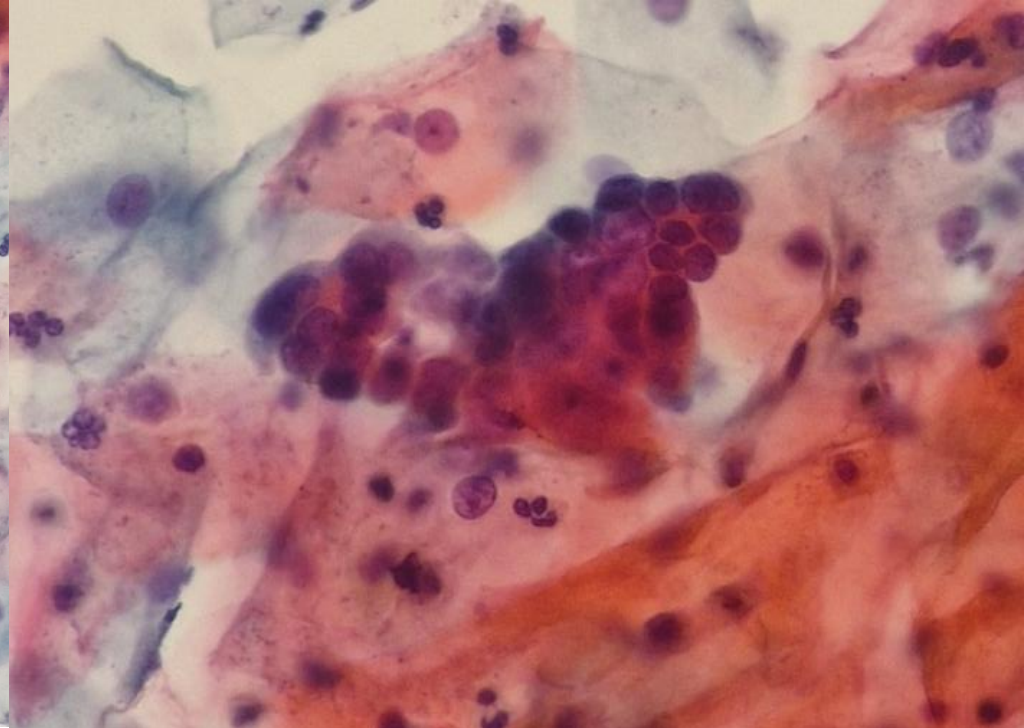
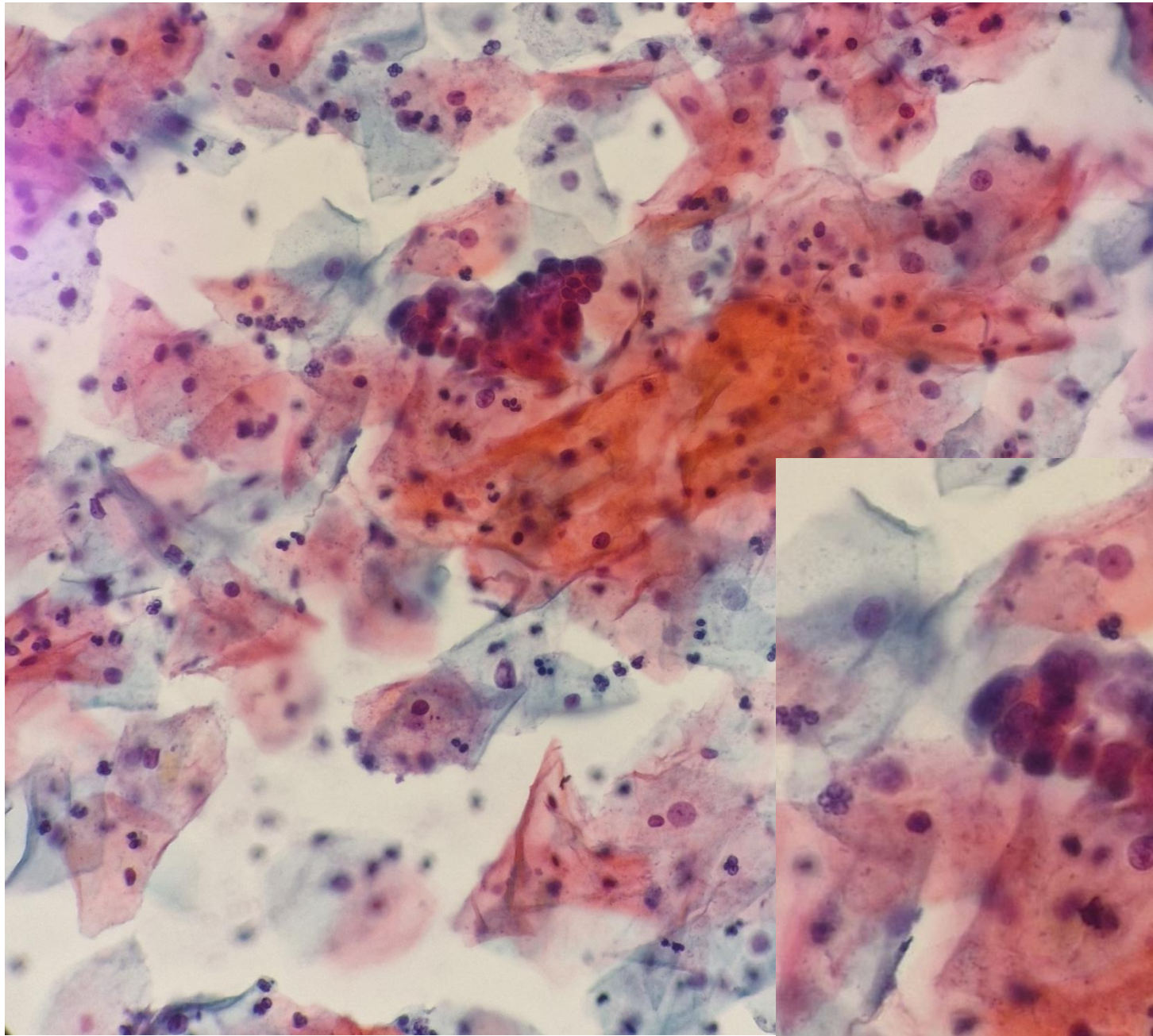
CASE A

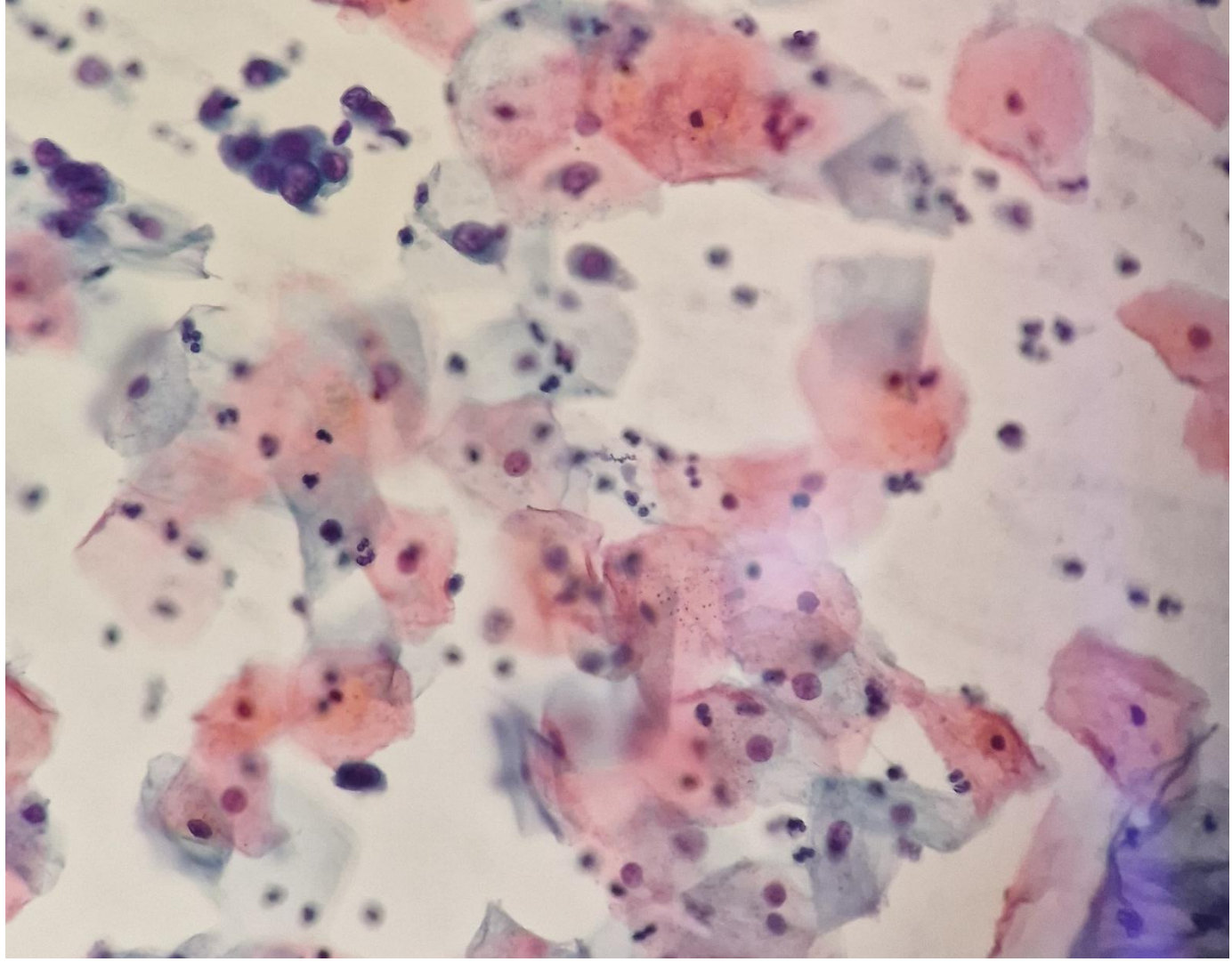
- 33-years-old female
- 2023-NILM
- 2025- LSIL => HR HPV detection and typing => HPV 16
- Biopsy and endocervical curettage

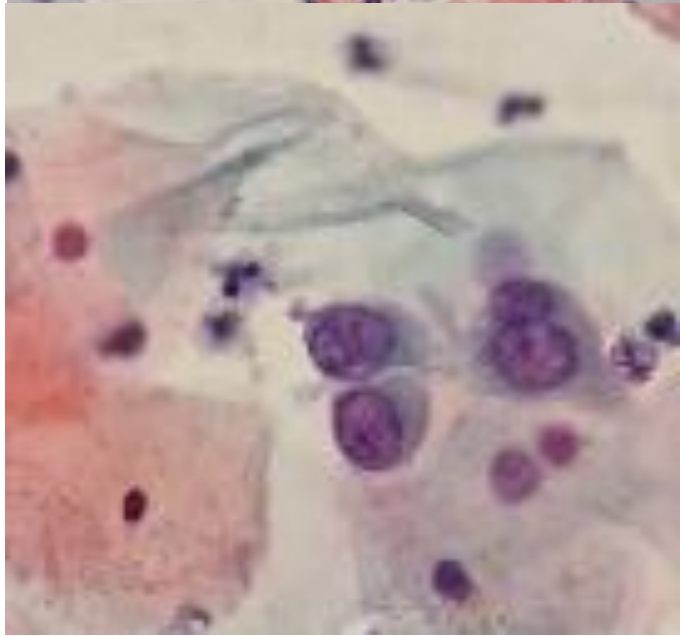
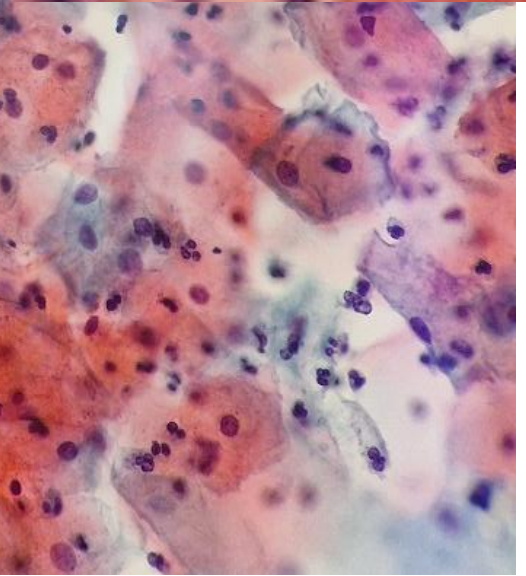
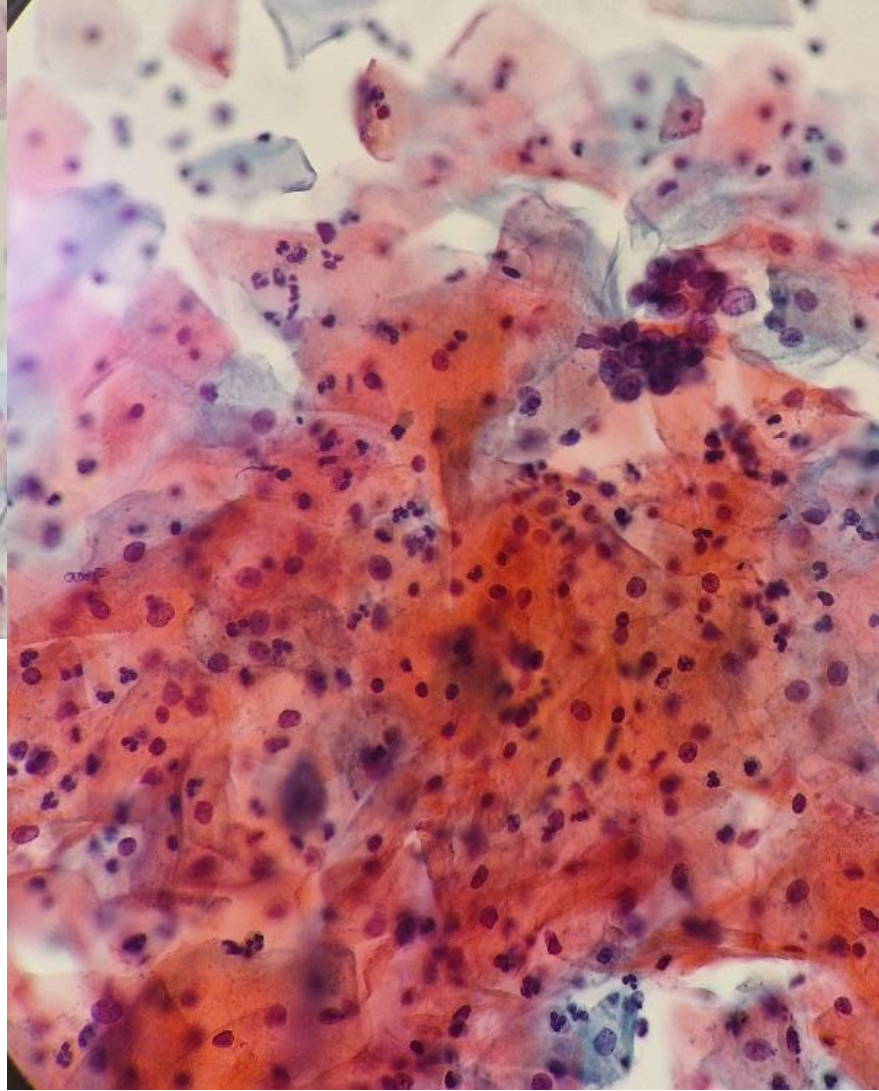
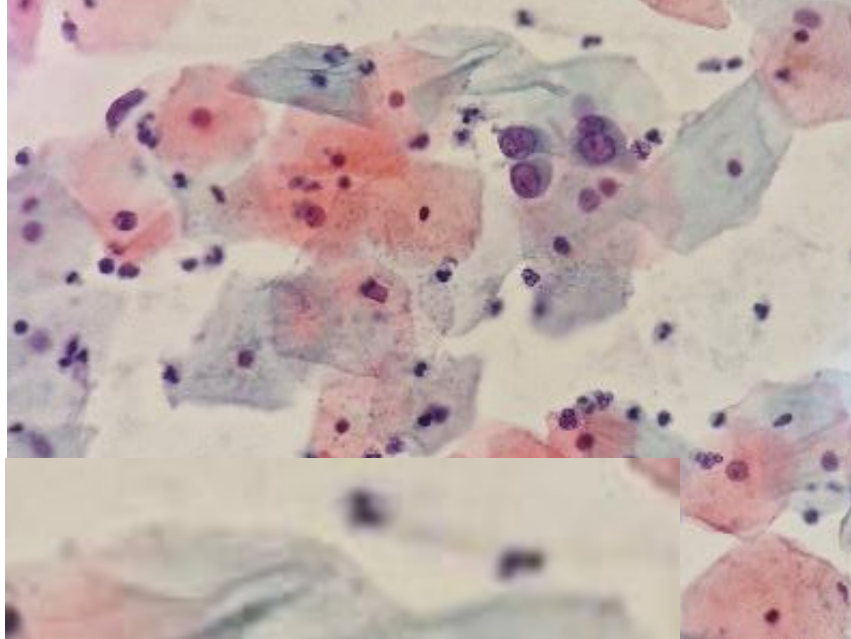
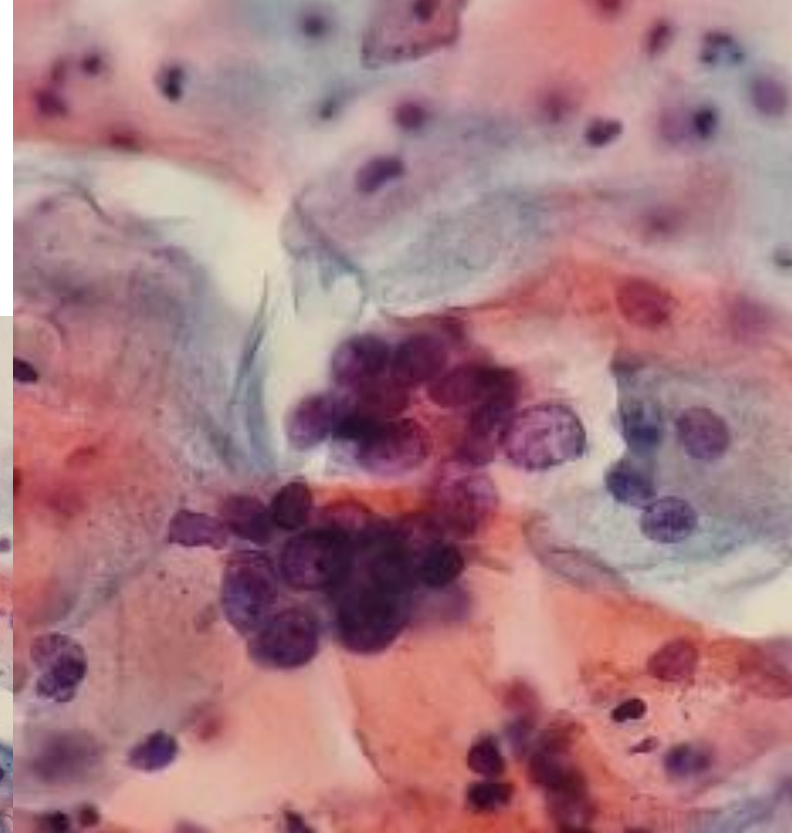
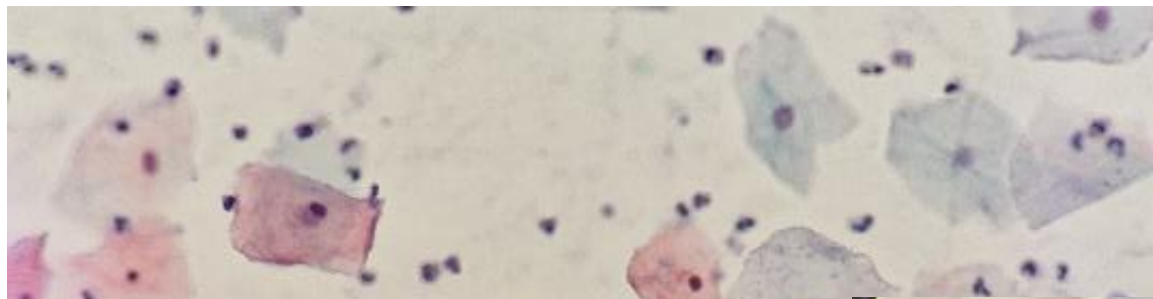






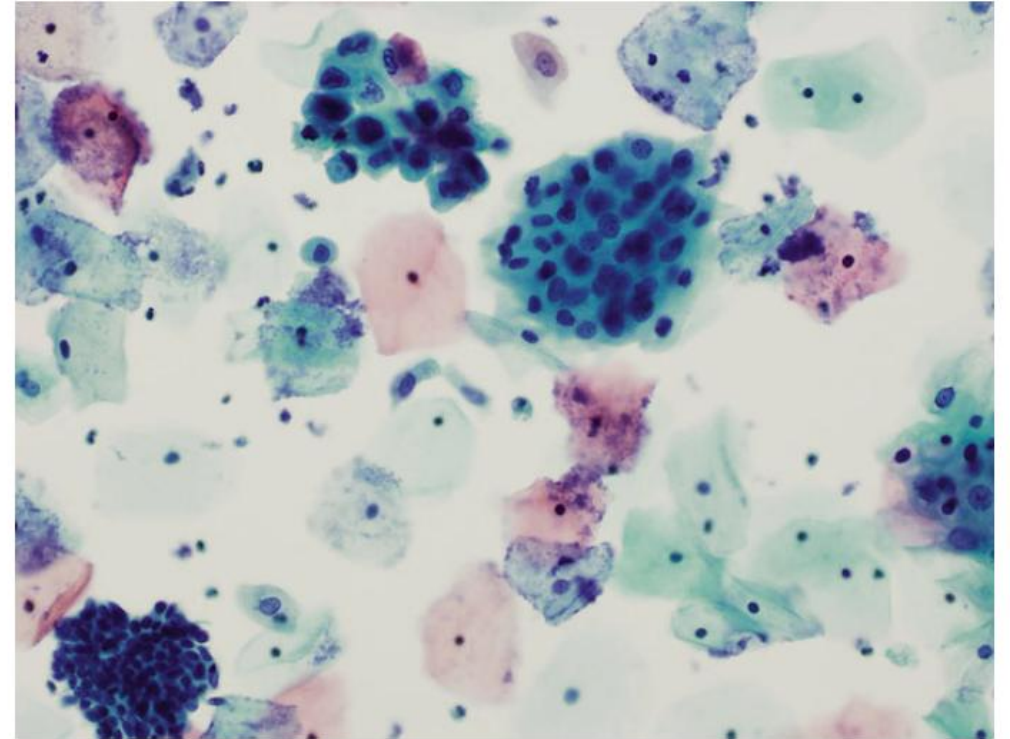


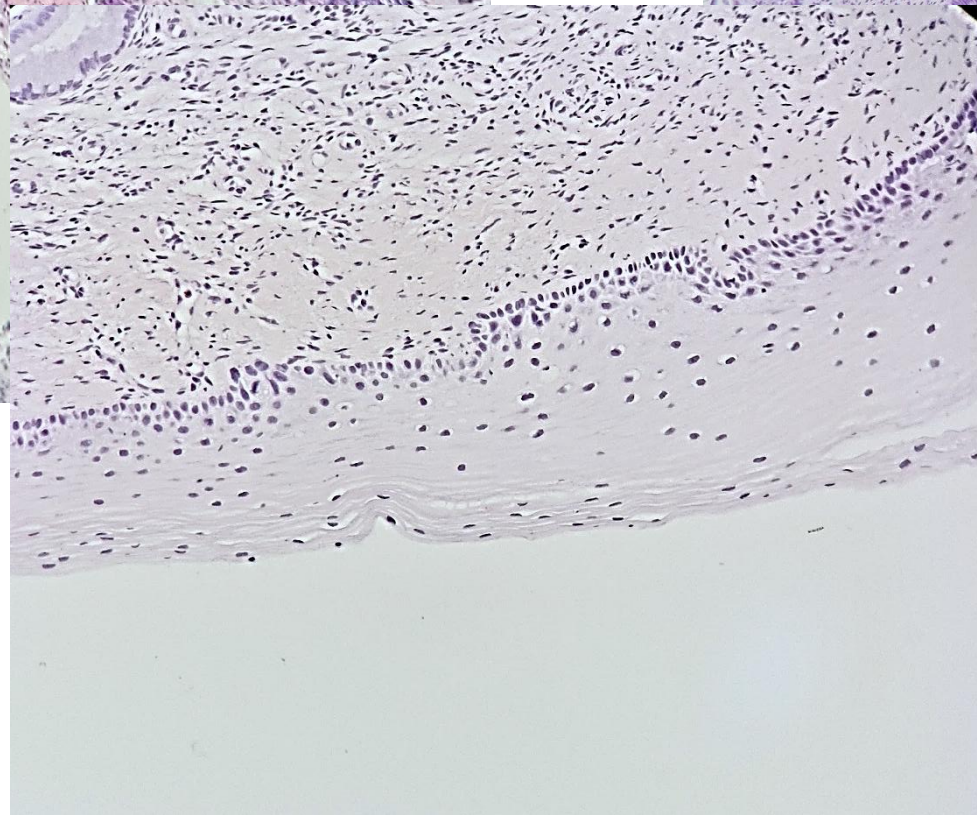
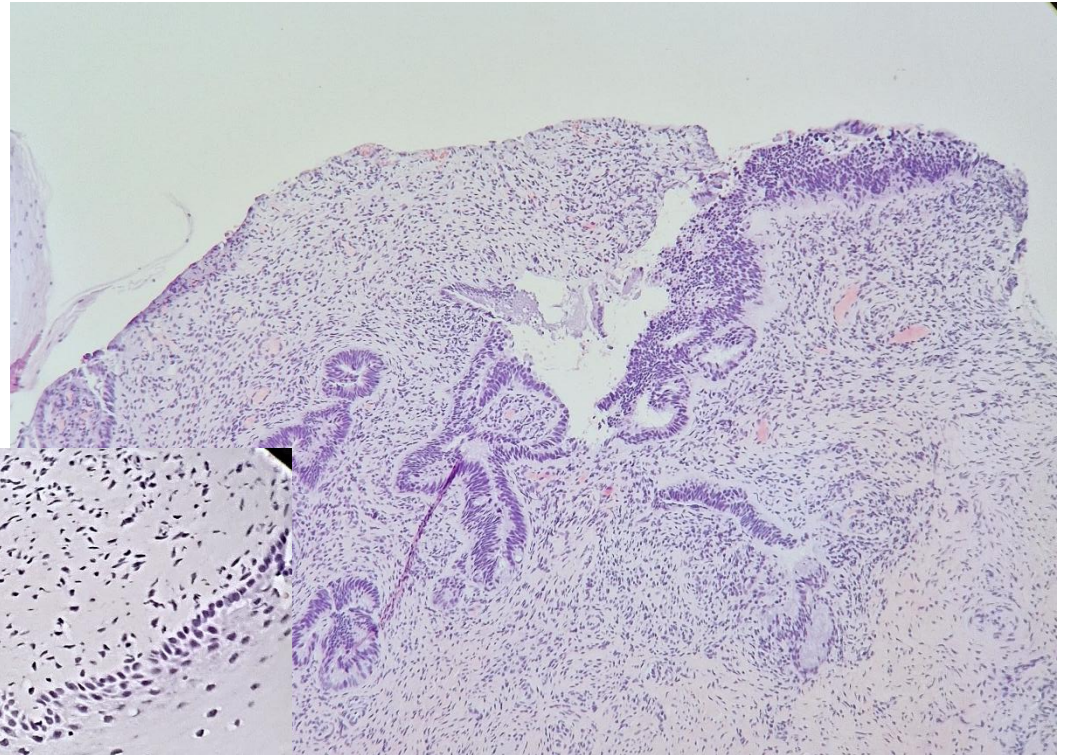
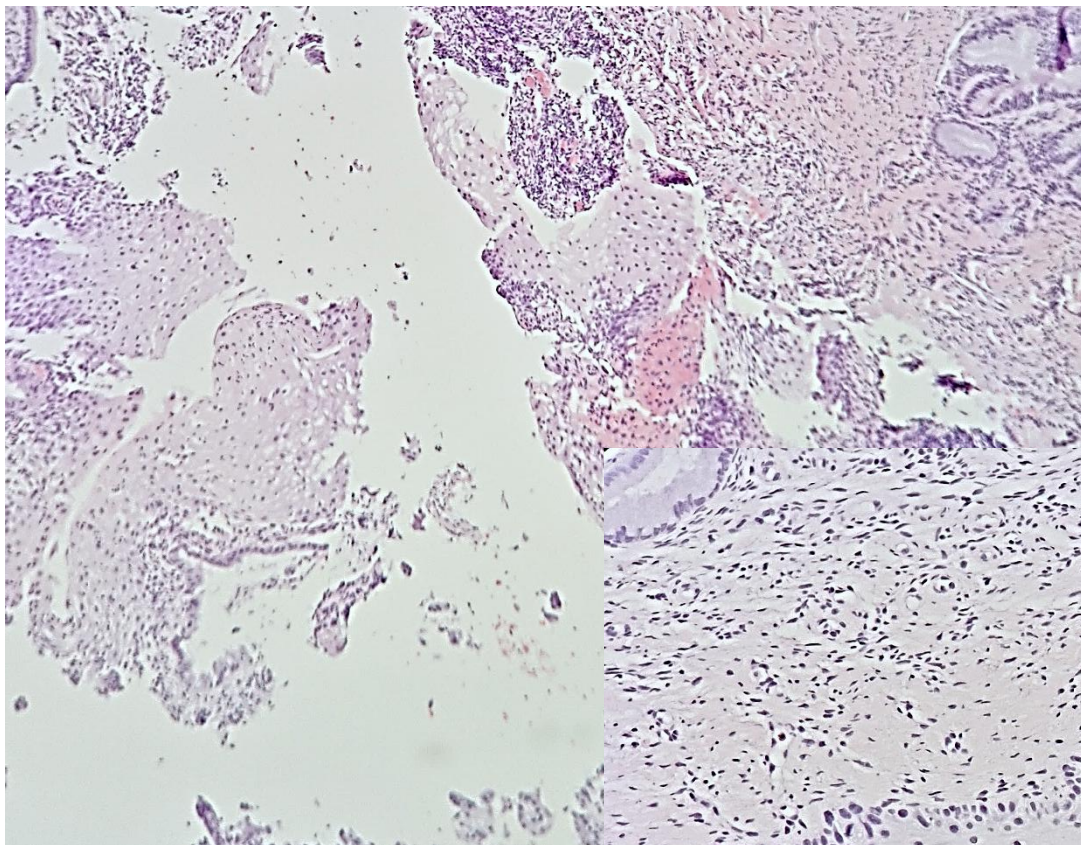


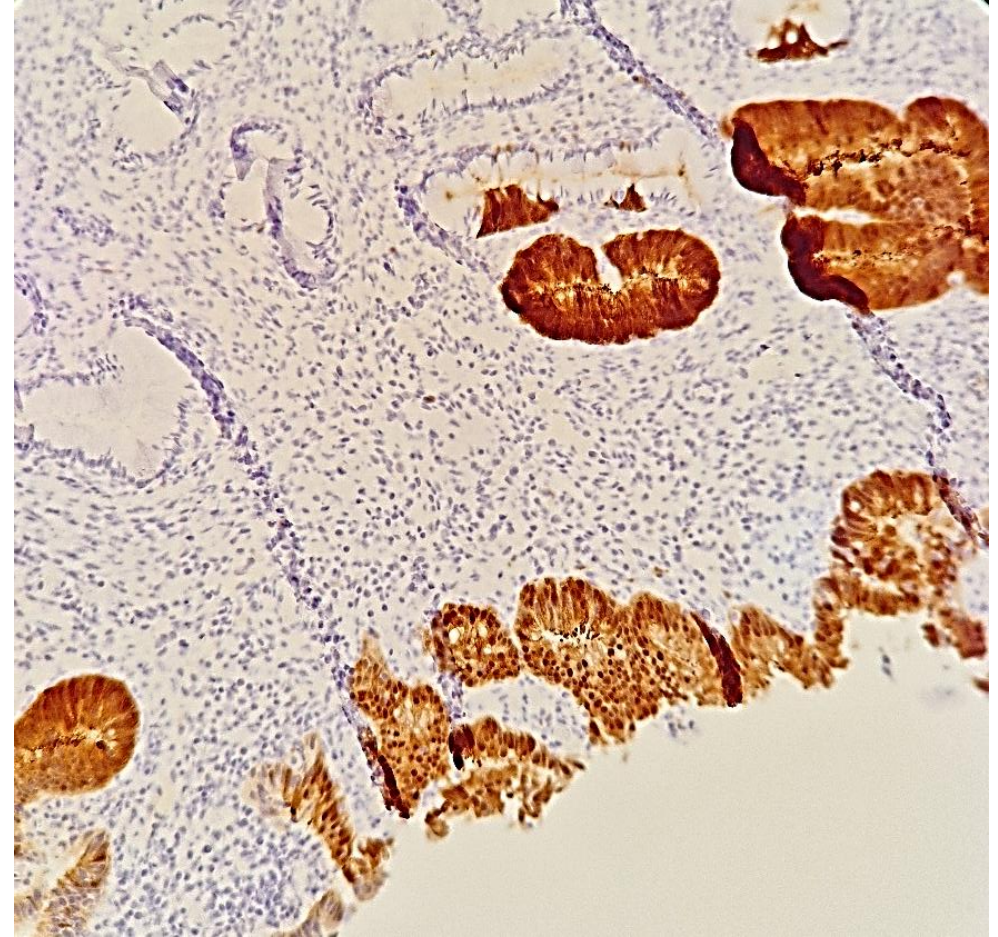
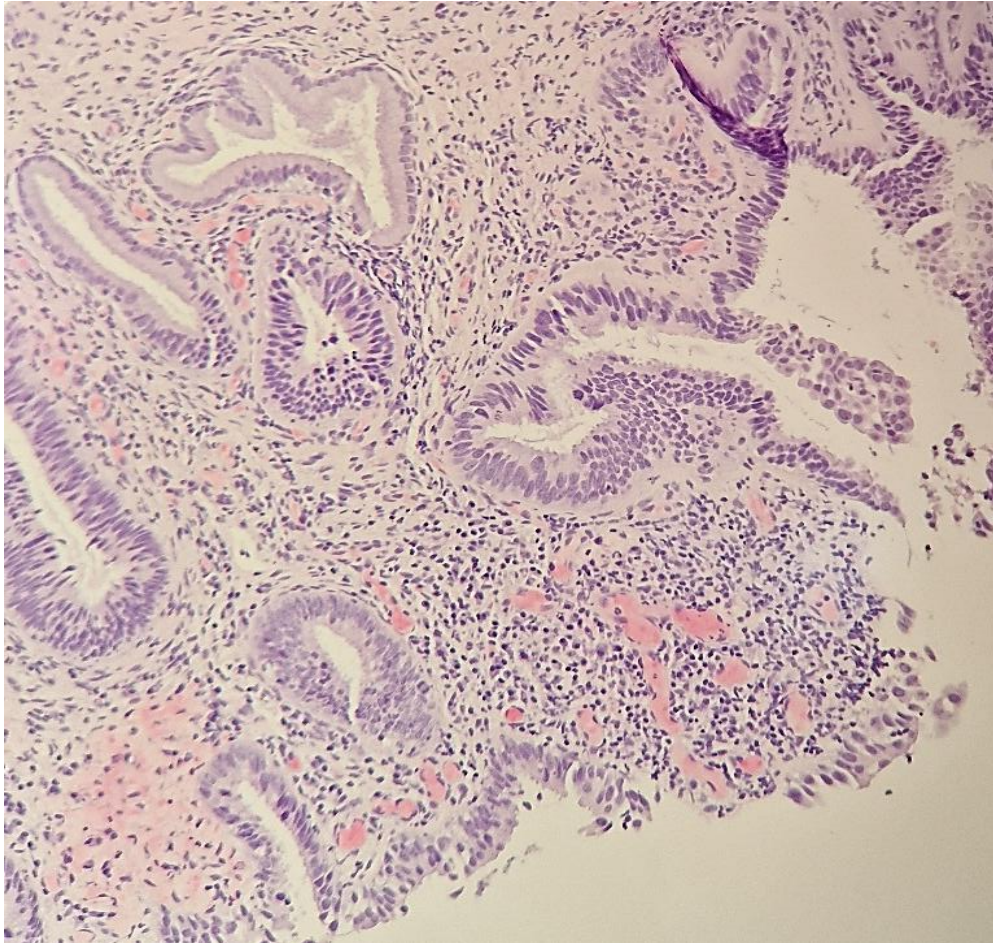


Coexisting Squamous and Glandular Lesions

- The possibility of coexisting glandular and squamous lesions in the cervix should always be considered when making an interpretation of endocervical AIS.
- In some studies, up to half of AIS lesions have a coexisting squamous intraepithelial lesion, usually of high grade.
- Often, the cytoplasmic features and the cell arrangements differentiate the two neoplastic processes.







Adenocarcinoma

Endocervical Adenocarcinoma

- Cytologic criteria overlap those outlined for AIS, but may show additional features indicative of invasion

Criteria

- Abundant abnormal cells, typically with columnar configuration.
- Single cells, two-dimensional sheets or three-dimensional clusters, and syncytial aggregates.
- Enlarged, pleomorphic nuclei demonstrate *irregular chromatin distribution, chromatin clearing, and nuclear membrane irregularities.*
- *Macronucleoli.*
- Cytoplasm is usually finely vacuolated.
- *Necrotic tumor diathesis is common.*
- Abnormal squamous cells may be present, representing a coexisting squamous lesion or the squamous component of an adenocarcinoma showing partial squamous differentiation.

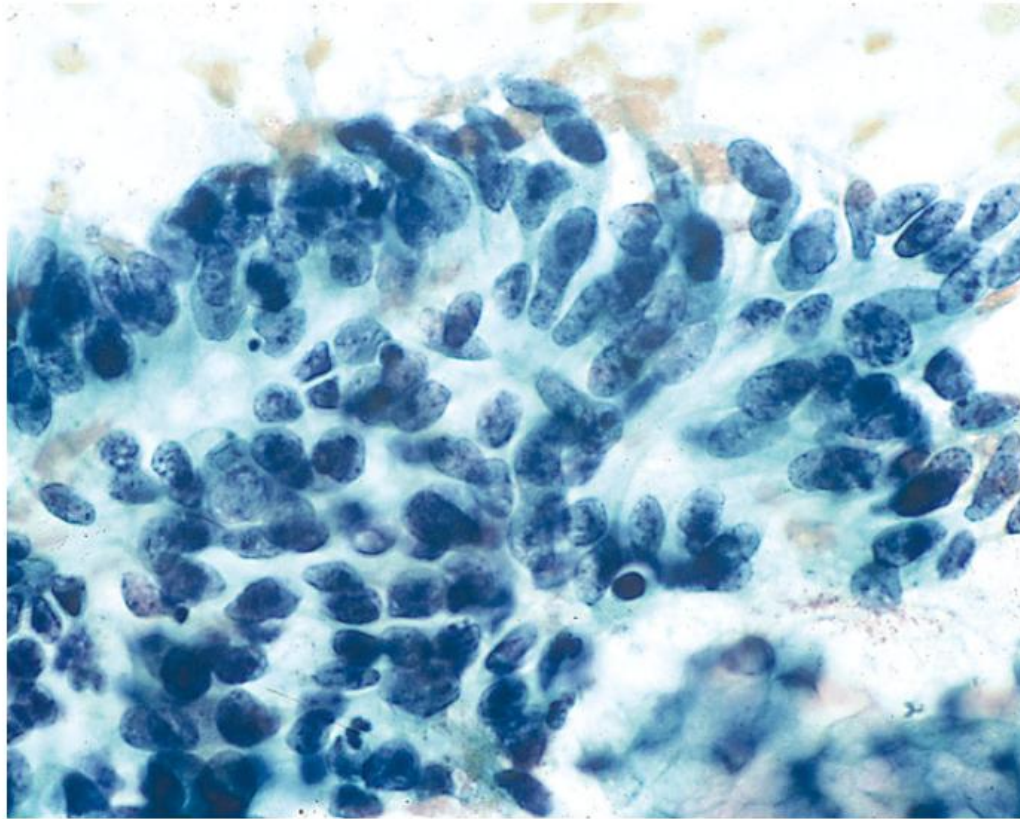


Fig. 6.35 Adenocarcinoma, endocervical (*CP*). A 32-year-old woman with abnormal cervix o pelvic exam. Cytologic features may overlap with those of endocervical adenocarcinoma in situ. Follow-up showed invasive endocervical adenocarcinoma

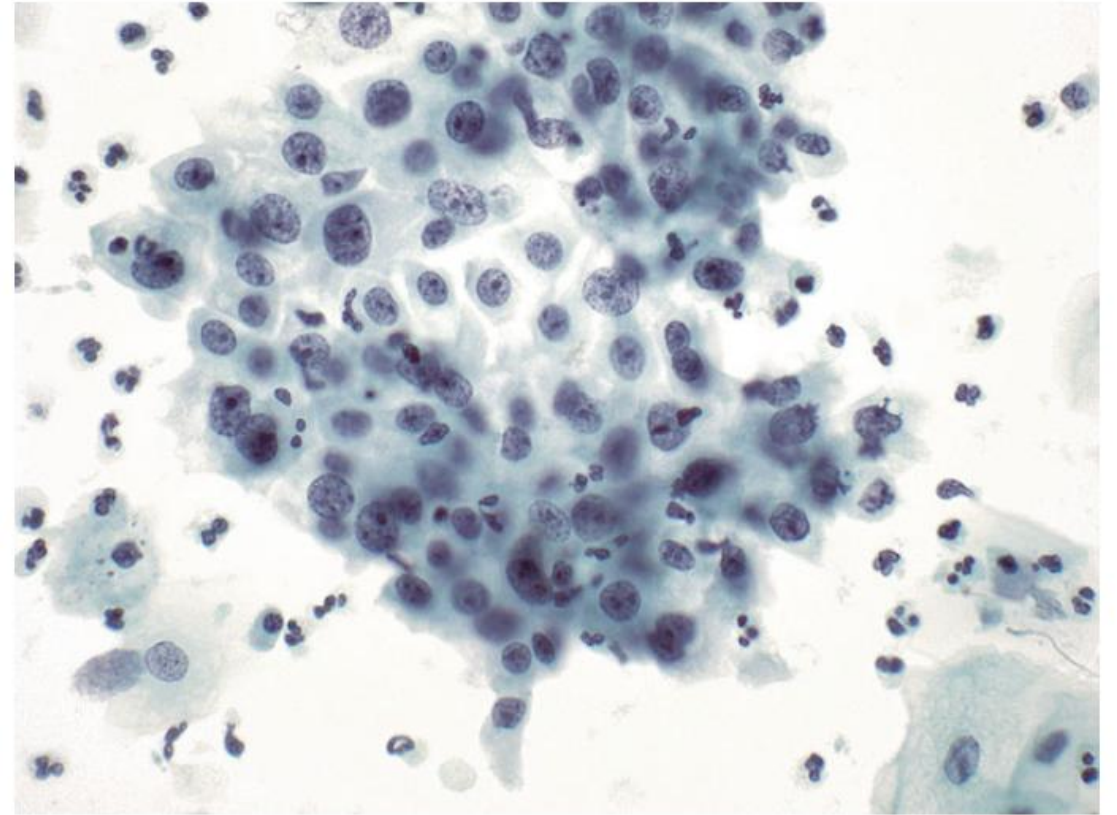


Fig. 6.38 Adenocarcinoma, endocervical (*LBP, SurePath*). Cell group demonstrates glandular architecture and large nuclei, irregular chromatin distribution, and prominent macronucleoli. This group shows well-defined cytoplasmic boundaries mimicking reparative change, which can often be a problematic differential diagnosis

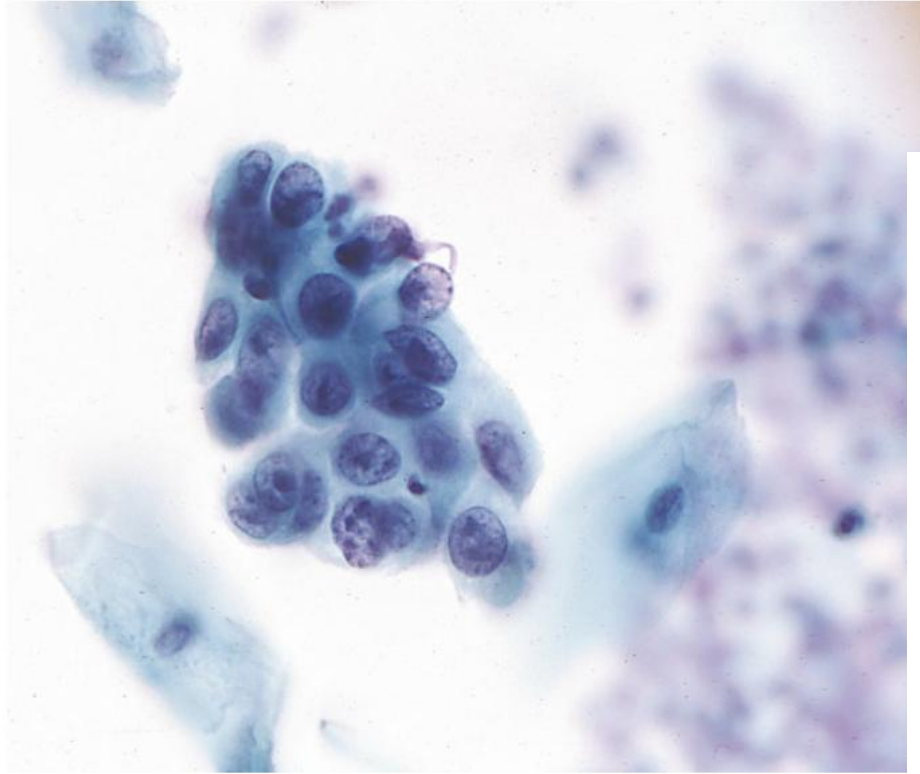


Fig. 6.39 Adenocarcinoma, endocervical (*LBP, ThinPrep*). A 46-year-old woman. Cells may have more vesicular chromatin with irregular distribution and chromatin clearing as macronucleoli. Follow-up showed invasive endocervical adenocarcinoma

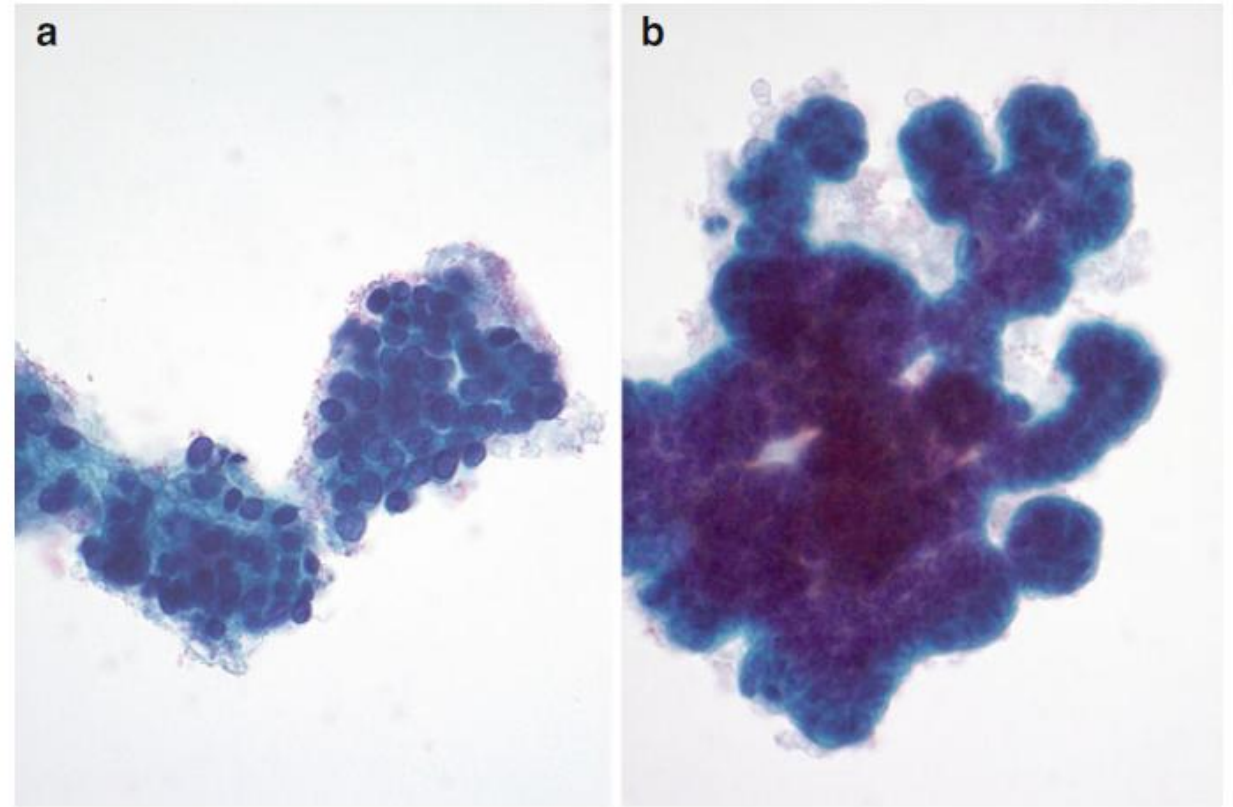


Fig. 6.42 Adenocarcinoma, endocervical villoglandular (*LBP, ThinPrep*). A rare neoplasia of the cervix, villoglandular carcinoma may demonstrate large cohesive groups of endocervical cells with nuclear crowding and loss of normal honeycomb pattern, with true papillary clusters being characteristic. (a) Cytologic atypia is often minimal, emphasizing the importance of appreciating the low-power architectural abnormalities of this neoplasm (b)

Adenocarcinoma

- Villoglandular adenocarcinomas are important because they arise in younger women than do the usual type and because they are often only superficially invasive.
- Mucinous carcinomas (minimal deviation adenocarcinoma or well-differentiated mucinous adenocarcinoma (adenoma malignum)) show gastric-type differentiation and are not typically associated with HPV. Hence, *hrHPV testing and p16 immunostains will be negative*.
- Adenoma malignum shows cells with bland nuclear features and low nuclear to cytoplasmic ratios.
- The cytoplasm shows abundant mucin or goblet cell differentiation and in some cases has a characteristic yellowish tinge resembling gastric foveolar epithelium.

Adenoma malignum: Large abnormally configured sheets of cells, with nuclear crowding, diathesis, background mucin, and the presence of rare groups of highly atypical cells.

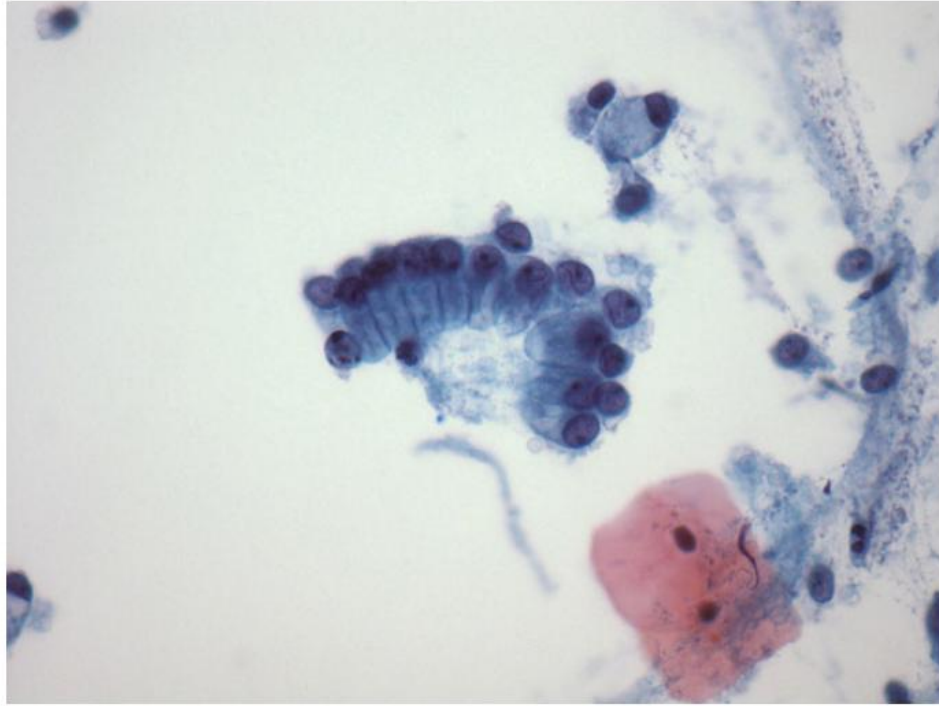


Fig. 6.44 Mucinous carcinoma, gastric type (adenoma malignum) (*LBP, SurePath*). Abundant mucinous cytoplasm and occasional goblet cells are present. Note bland nuclear morphology similar to what is noted in the histology (see Fig. 6.43)

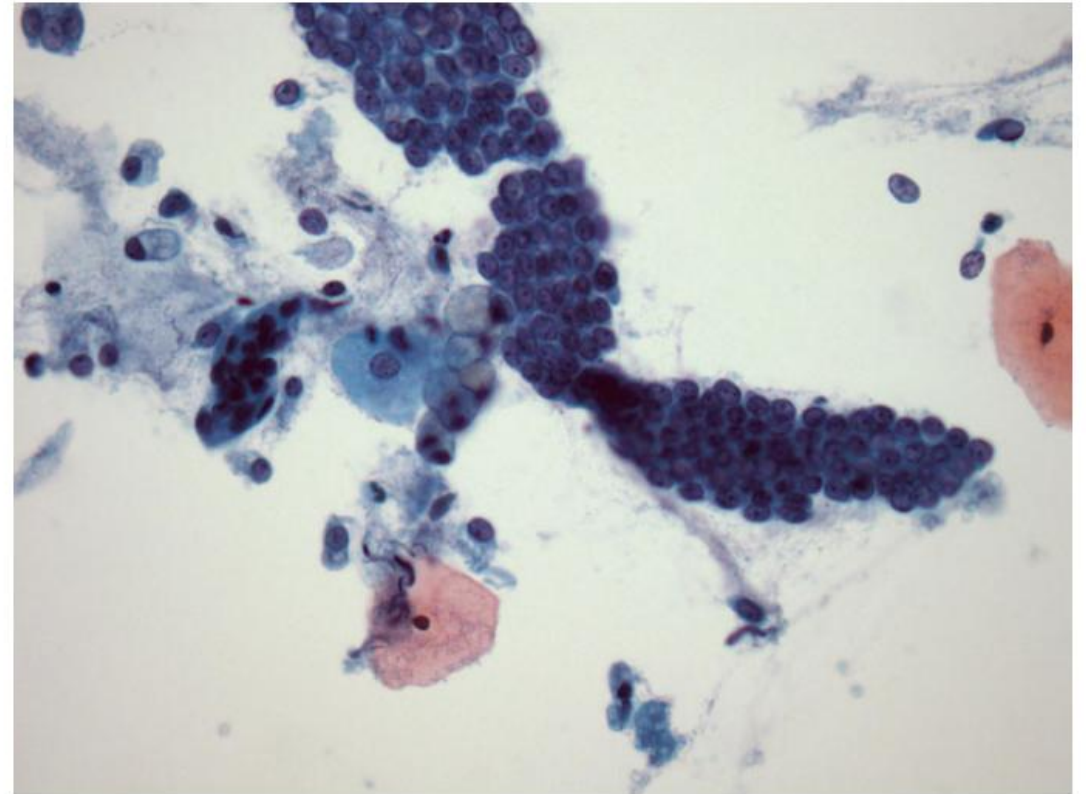
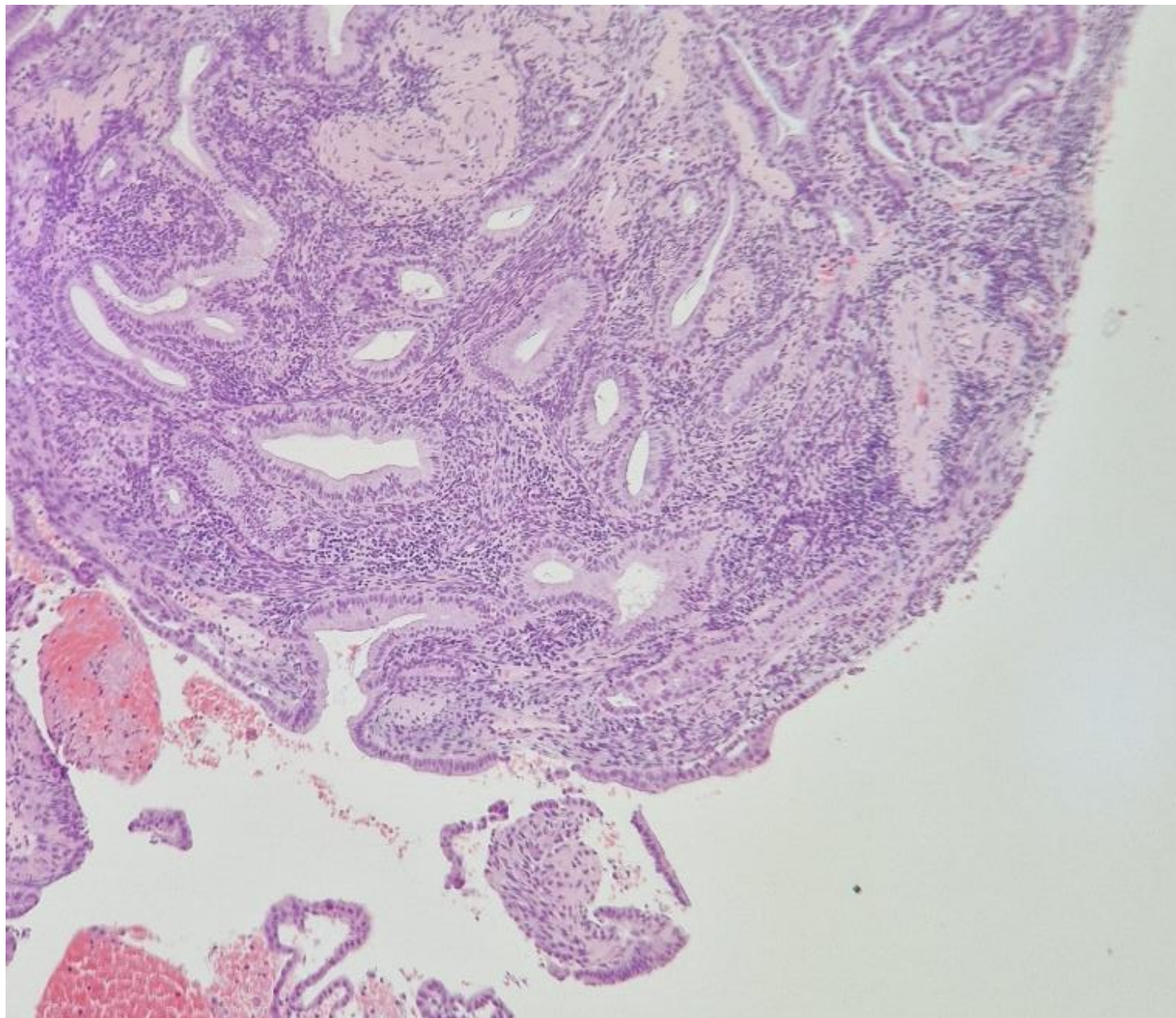
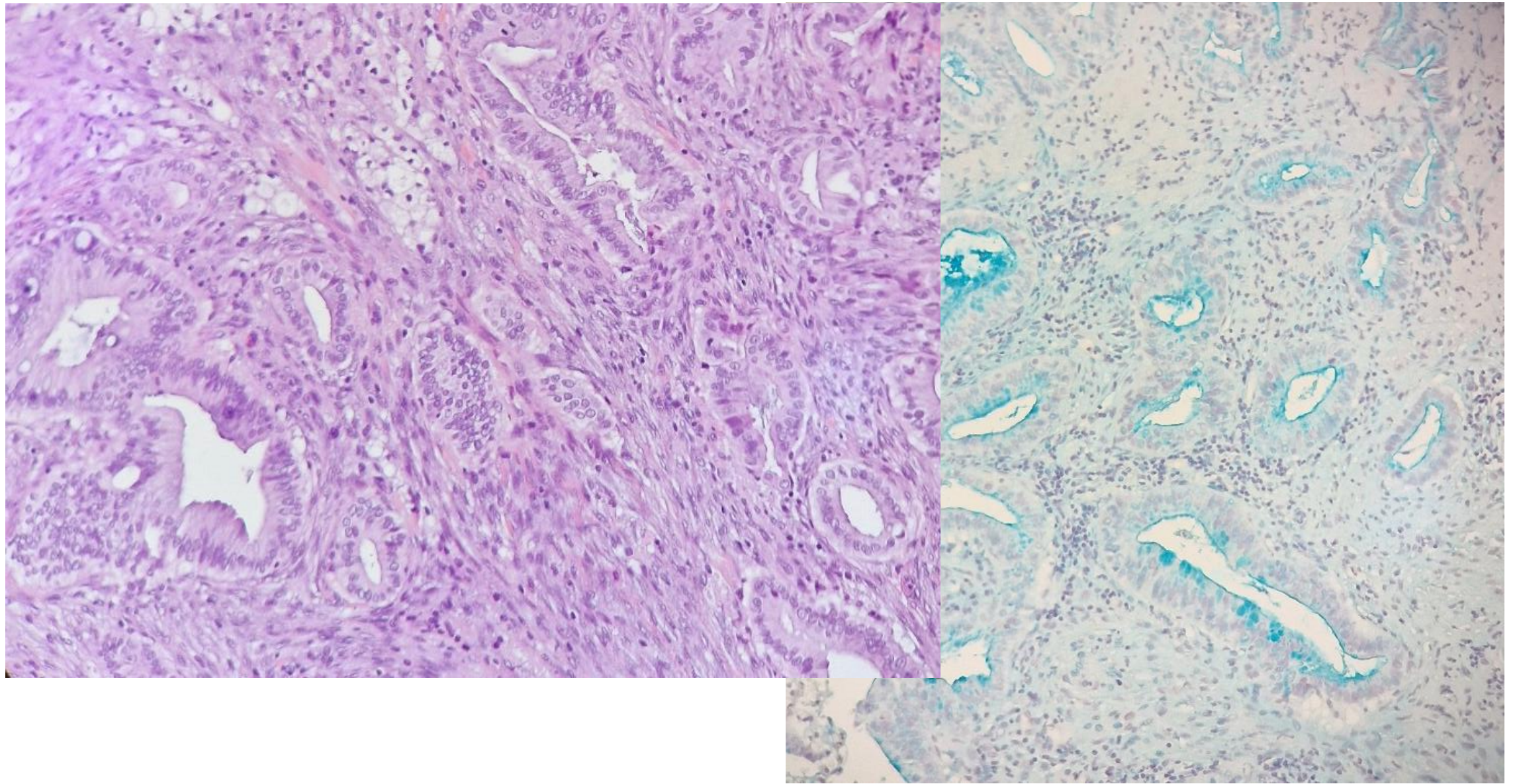


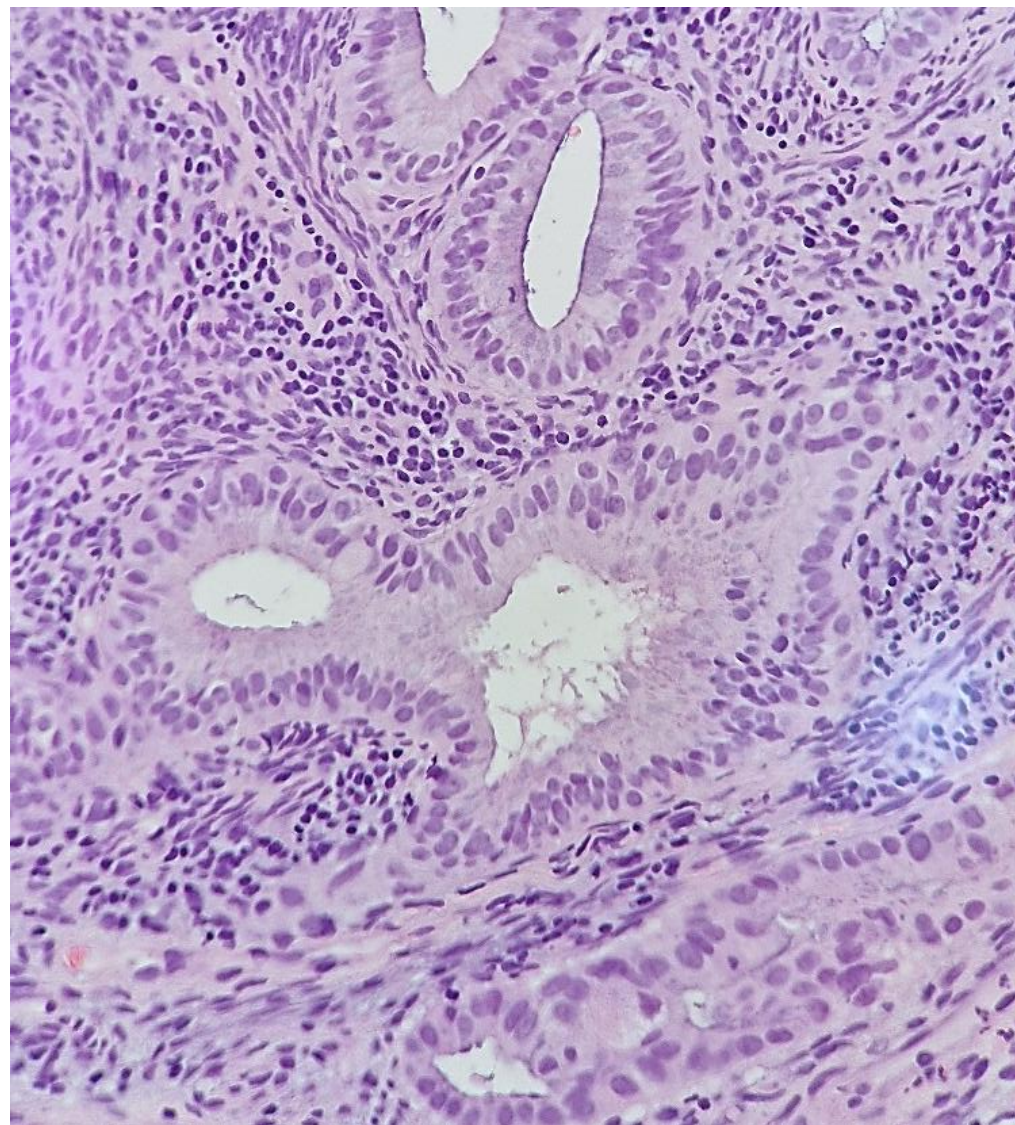
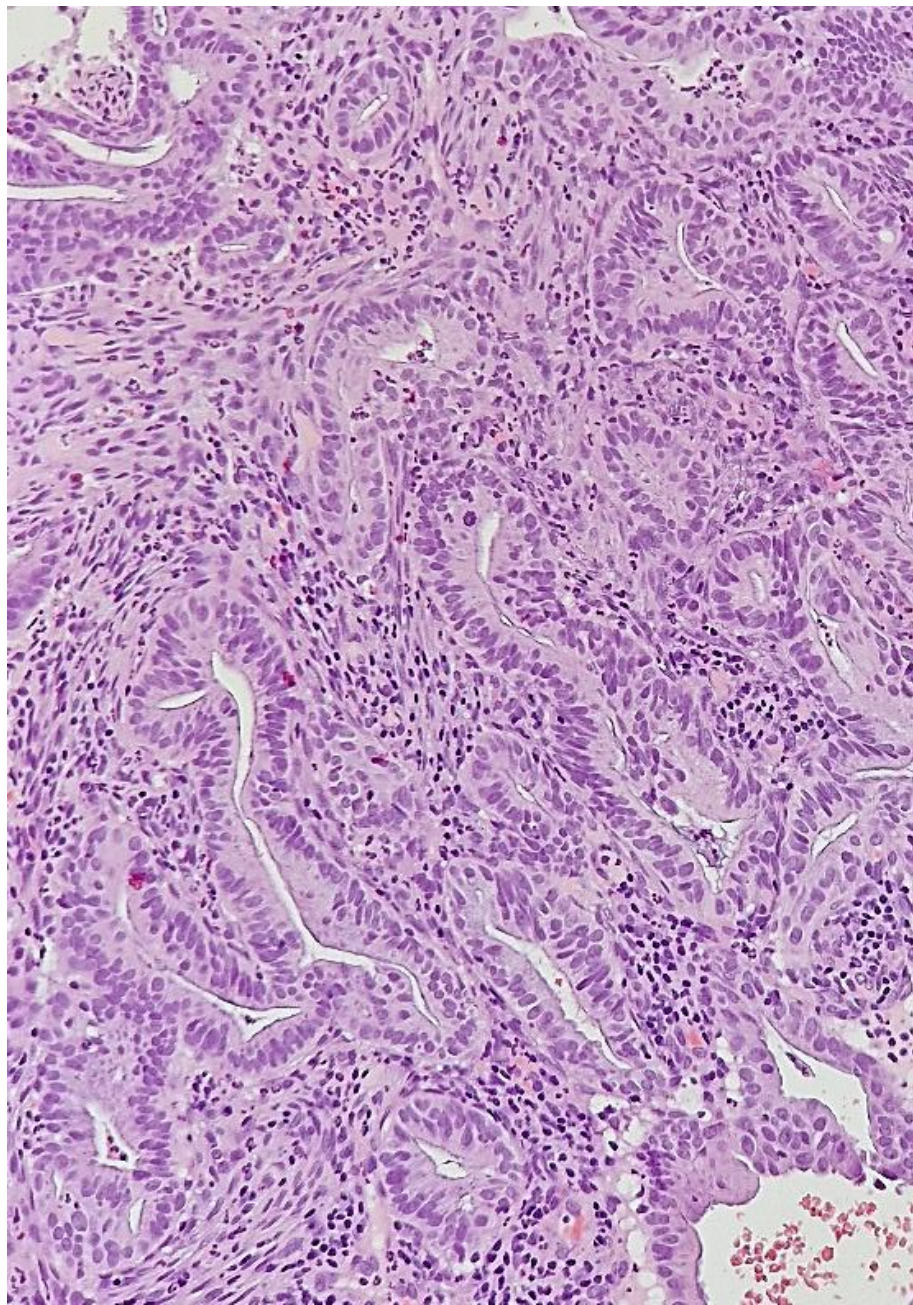
Fig. 6.45 Mucinous carcinoma, gastric type (adenoma malignum) (*LBP, SurePath*). Note the centrally located goblet cells with typical brown/yellow hue to the mucin, consistent with pyloric differentiation

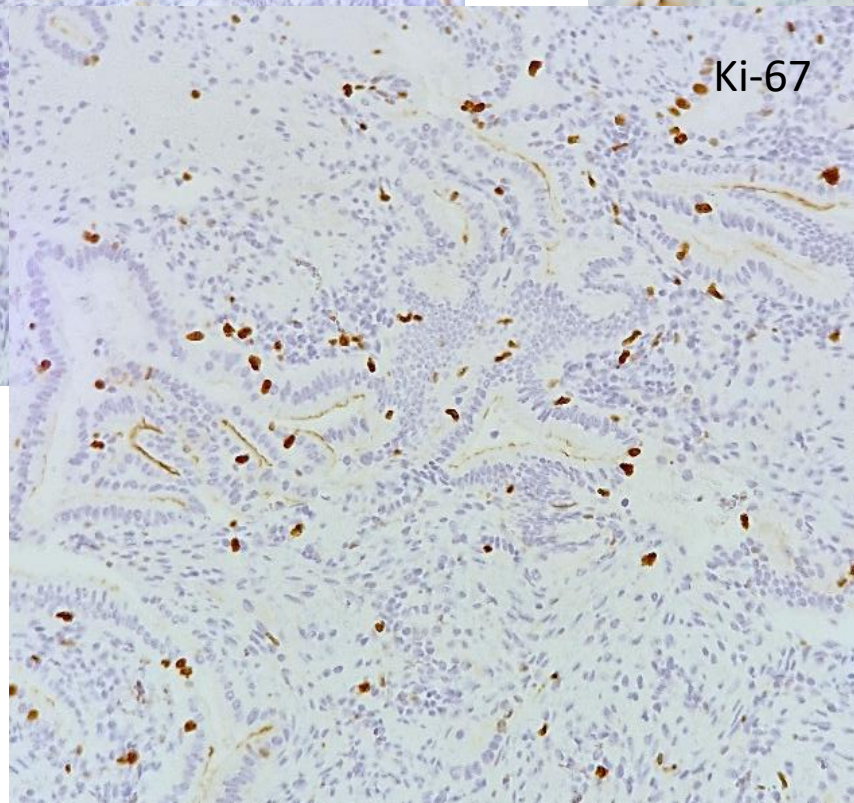
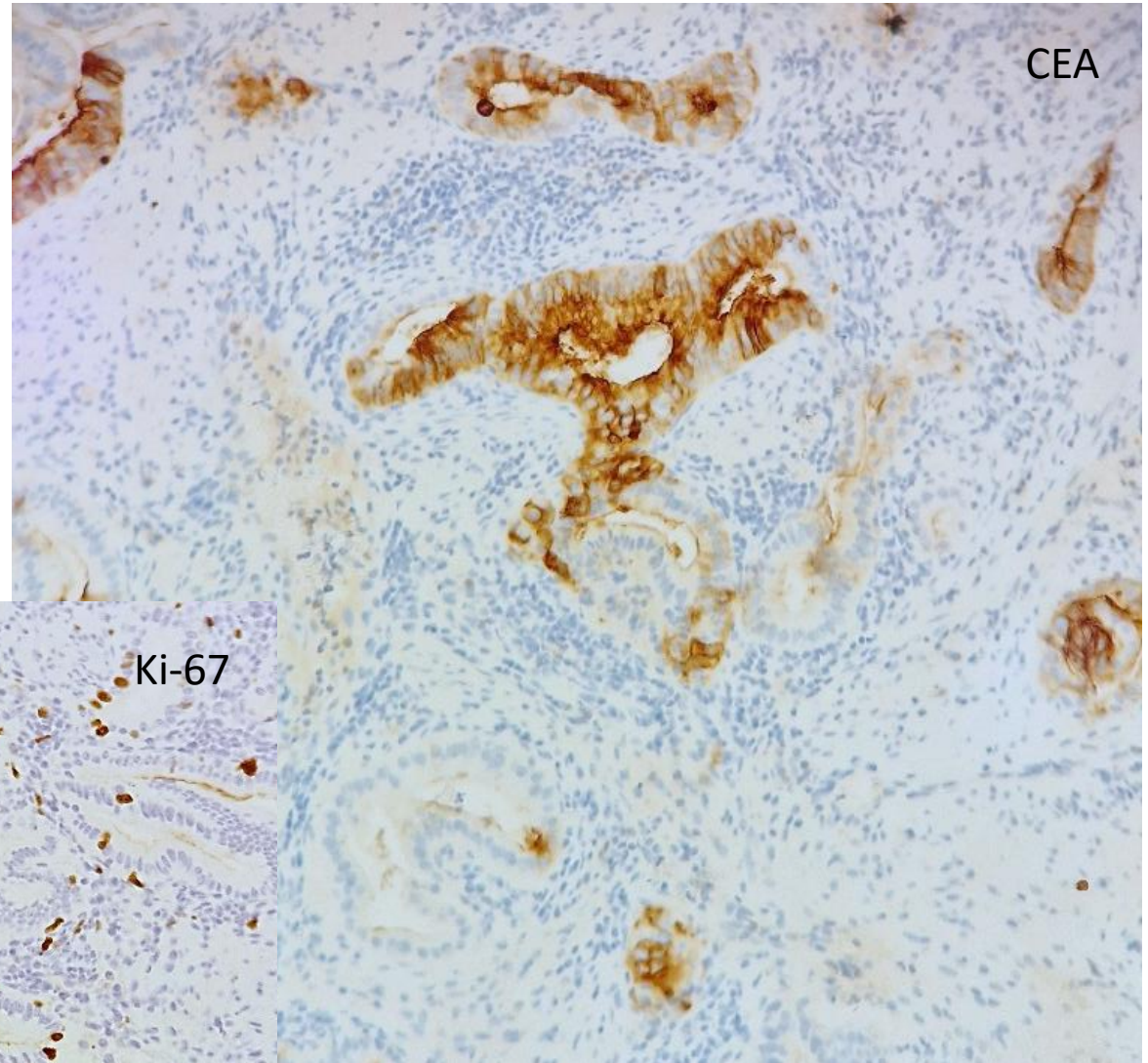
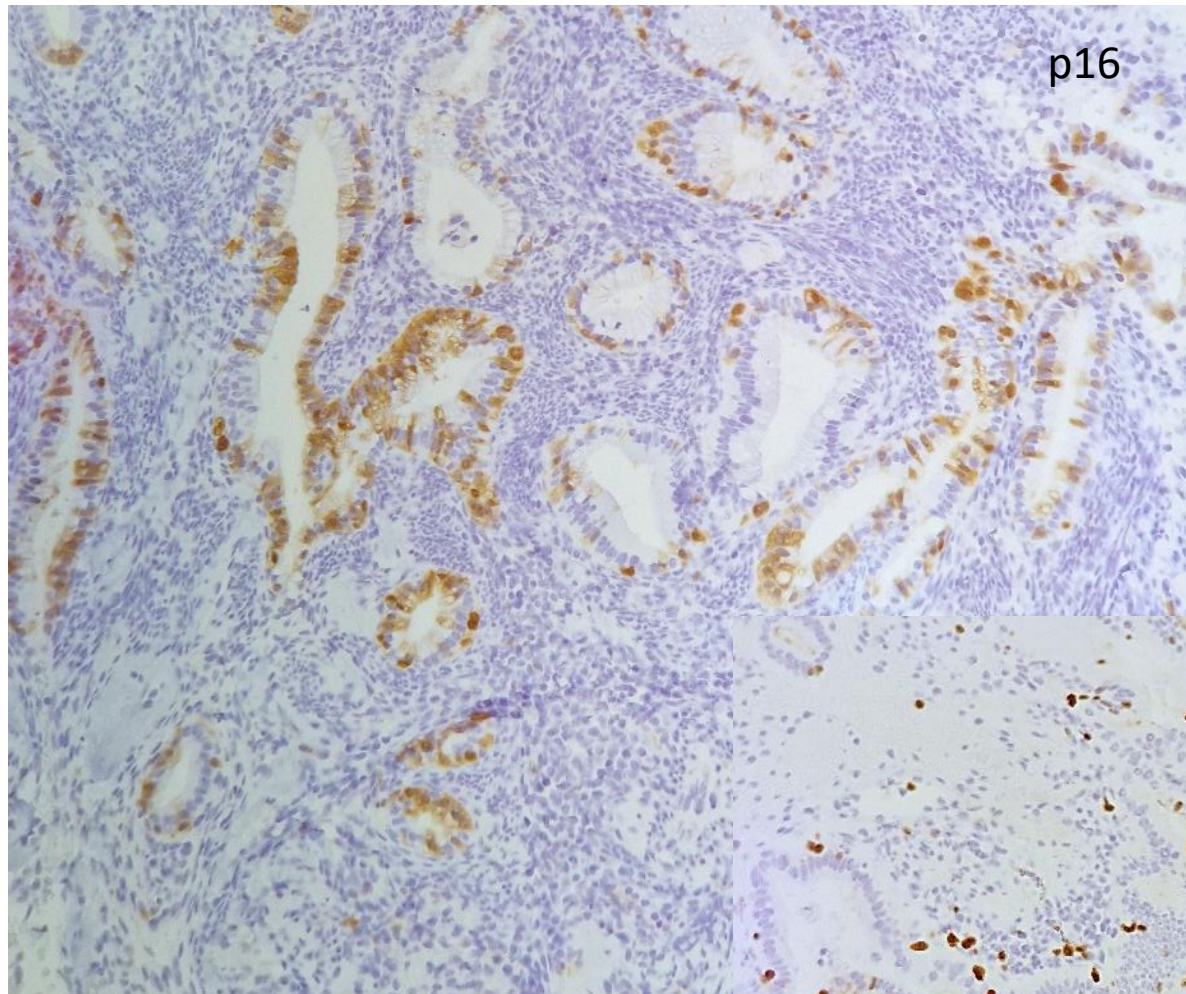
CASE B

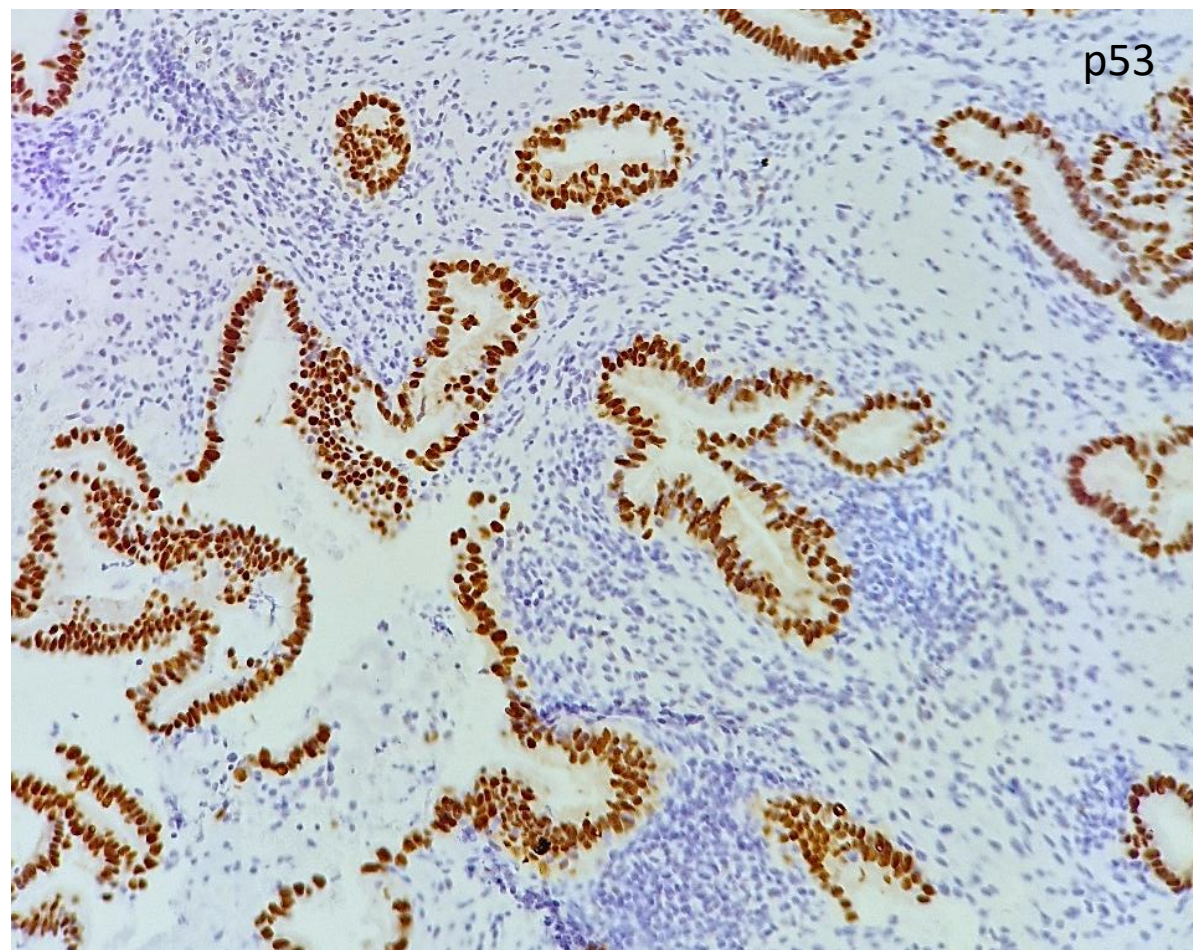
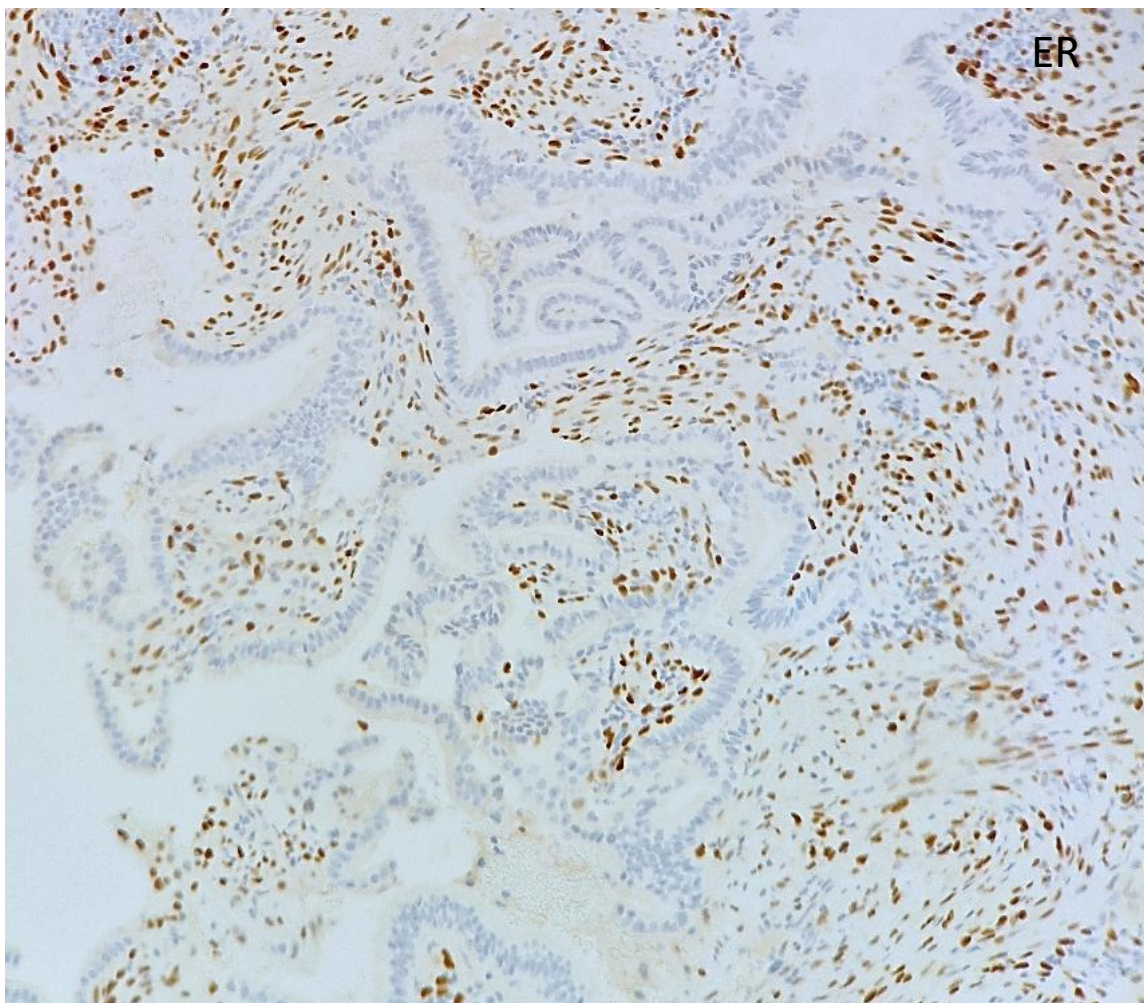
- 65-years–old female
- 2023-no previous PAP test records
- Vaginal discharge, suspicious PVU
- Biopsy and endocervical curettage

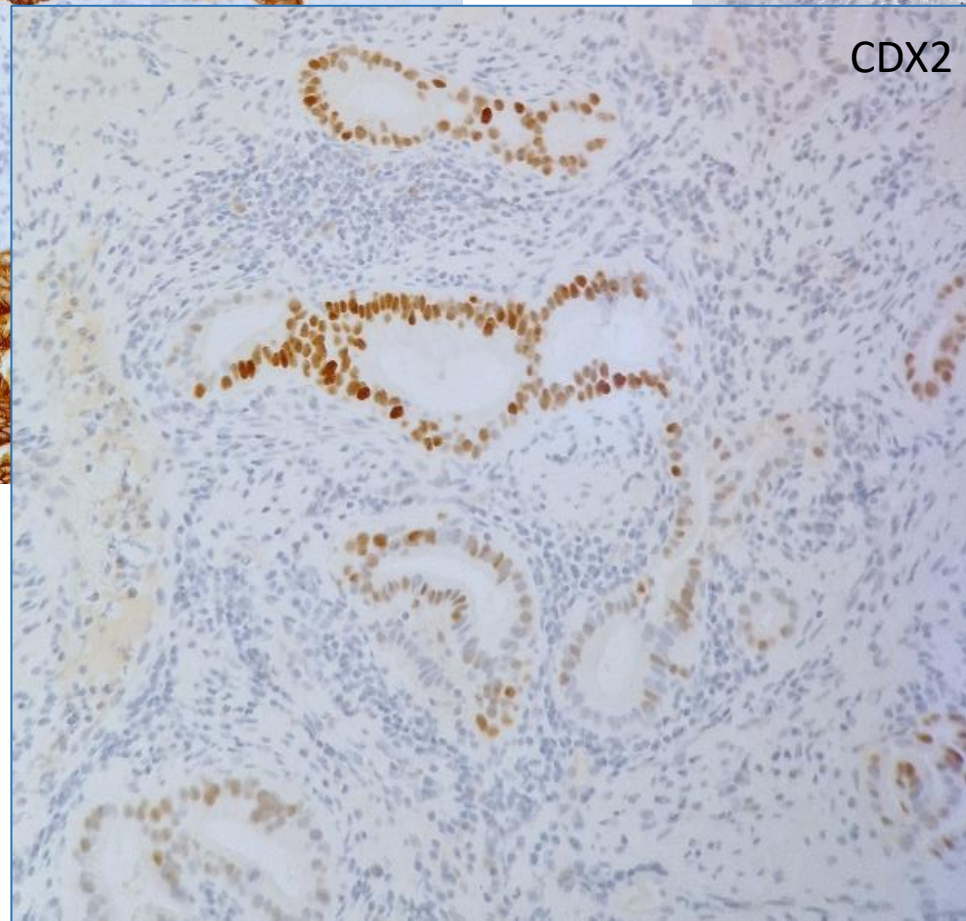
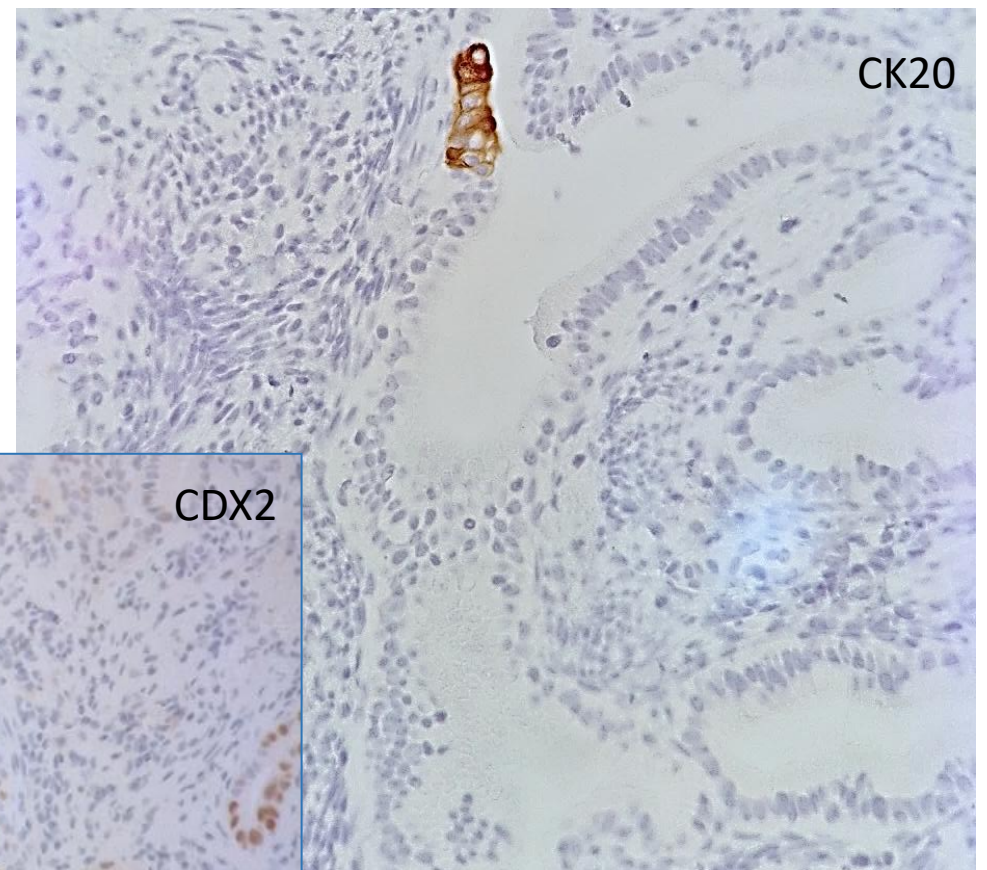
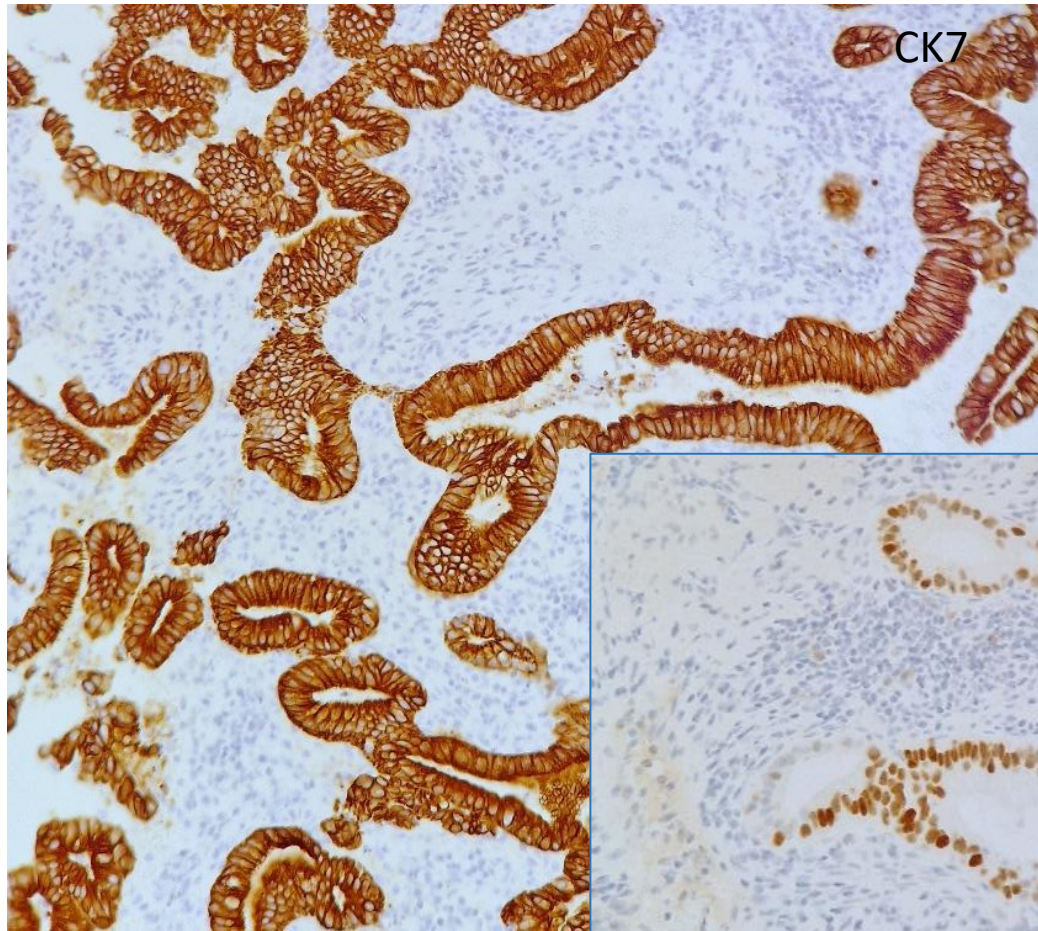












Adenocarcinoma of the uterine cervix, HPV-independent, gastric type (WHO blue book)

- Gastric-type adenocarcinoma accounts for 10–15% of all cervical adenocarcinomas worldwide....
- and for 20–25% in Japan??
- The mean patient age is 50–55 years (range: 37–84 years) – significantly older than for HPV-associated adenocarcinoma.
- The hallmark feature is glandular cells with abundant clear or pale eosinophilic cytoplasm and distinct cell borders.
- Apical mitoses and apoptosis are present but inconspicuous.
- Cytoplasm contains neutral mucins, which stain pale pinkish-red on Alcian blue / PAS special staining (in contrast to the dark purple of acid mucins of normal endocervix).
- Morphology ranges from extremely well differentiated adenocarcinoma (previously termed “minimal deviation adenocarcinoma”), with deep haphazard claw-like gland distribution and limited desmoplasia, to poorly differentiated glands, clusters, and single cells.

- 2023 Gastroscopy negative...
- 2025-recurrence, abdominal and vaginal metastasis

Endometrial adenocarcinoma

- **Criteria**
- Cells typically occur singly or in small, tight clusters.
- In well-differentiated tumors, nuclei may be only slightly enlarged compared to nonneoplastic endometrial cells, becoming larger with increasing grade of the tumor.
- Variation in nuclear size and loss of nuclear polarity.
- Nuclei display moderate hyperchromasia, irregular chromatin distribution, and chromatin clearing, particularly in high-grade tumors.
- Small to prominent nucleoli; nucleoli become larger with increasing grade of tumor.
- Cytoplasm is typically scant, cyanophilic, and often vacuolated.
- Isolated cells or small groups of tumor cells may show intracytoplasmic neutrophils, often with the appearance of a “bag of polys”.
- A finely granular or “watery” tumor diathesis is variably present, most commonly in conventionally prepared specimens.

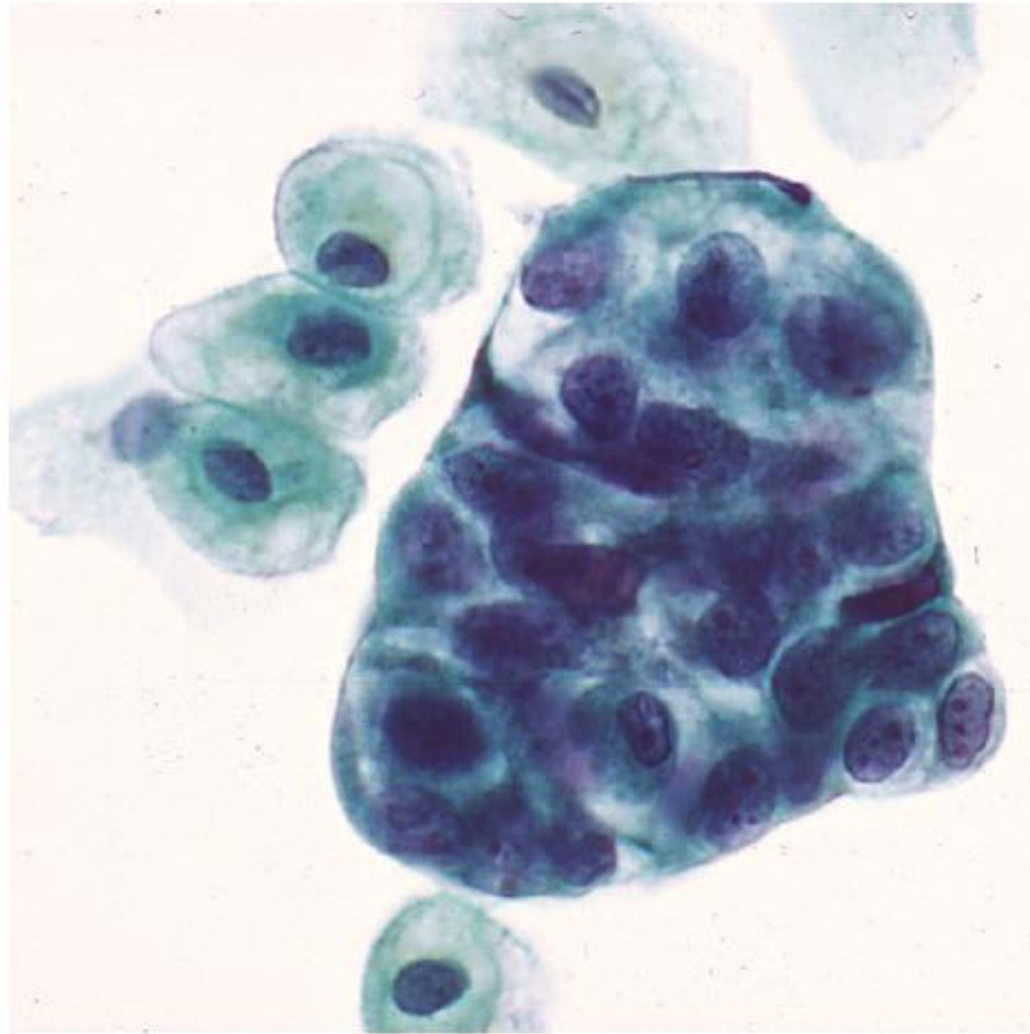
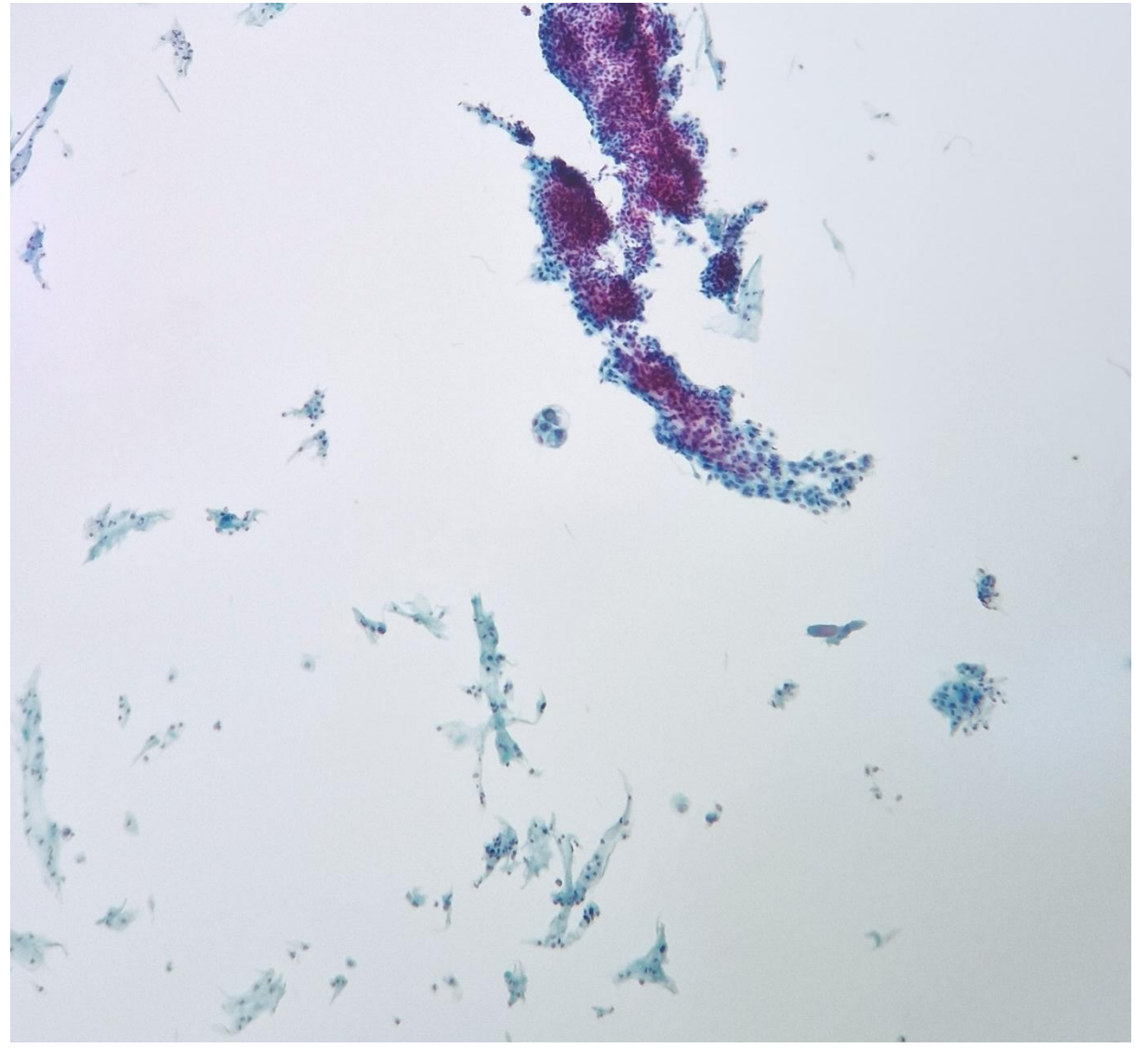
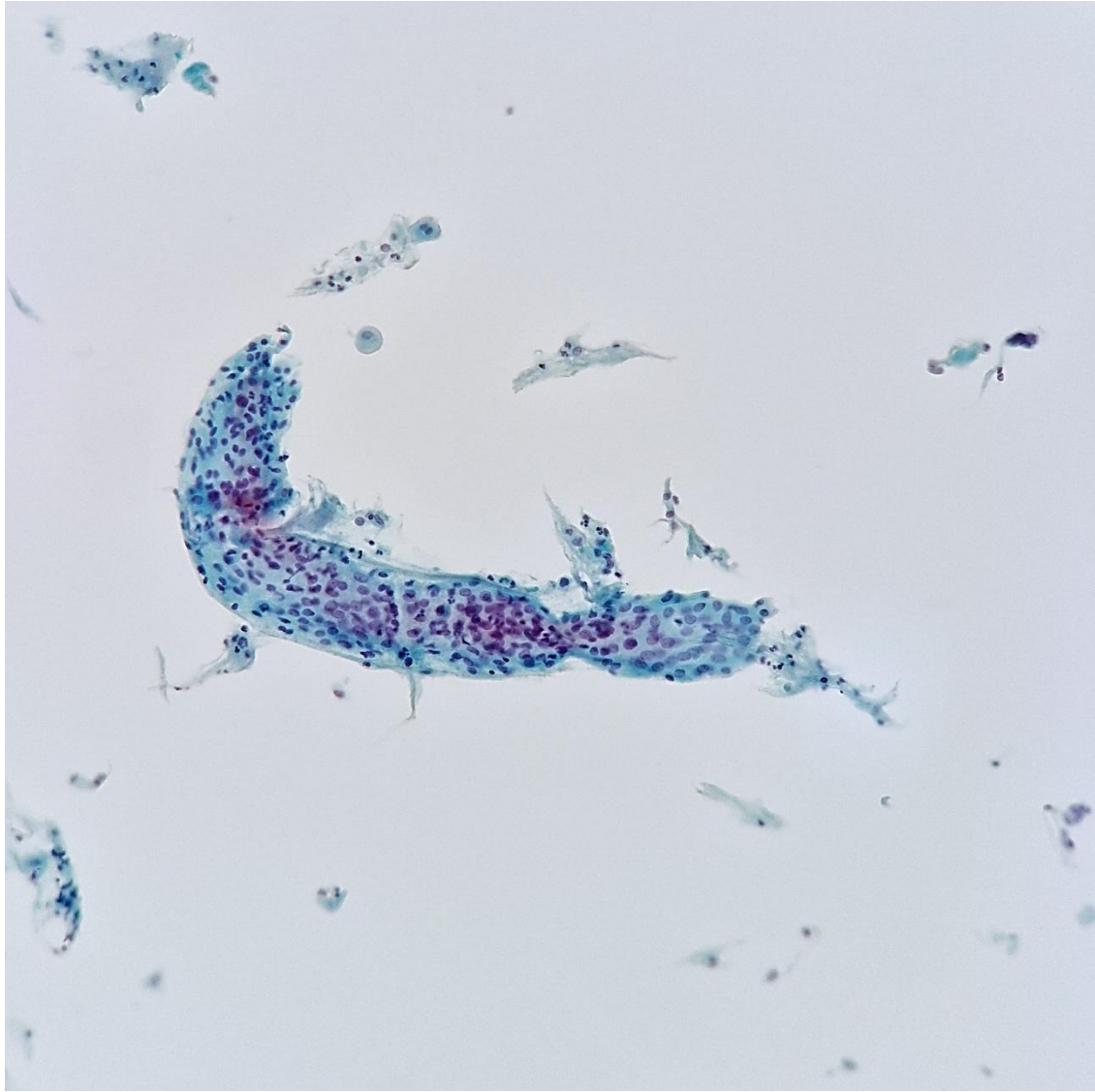


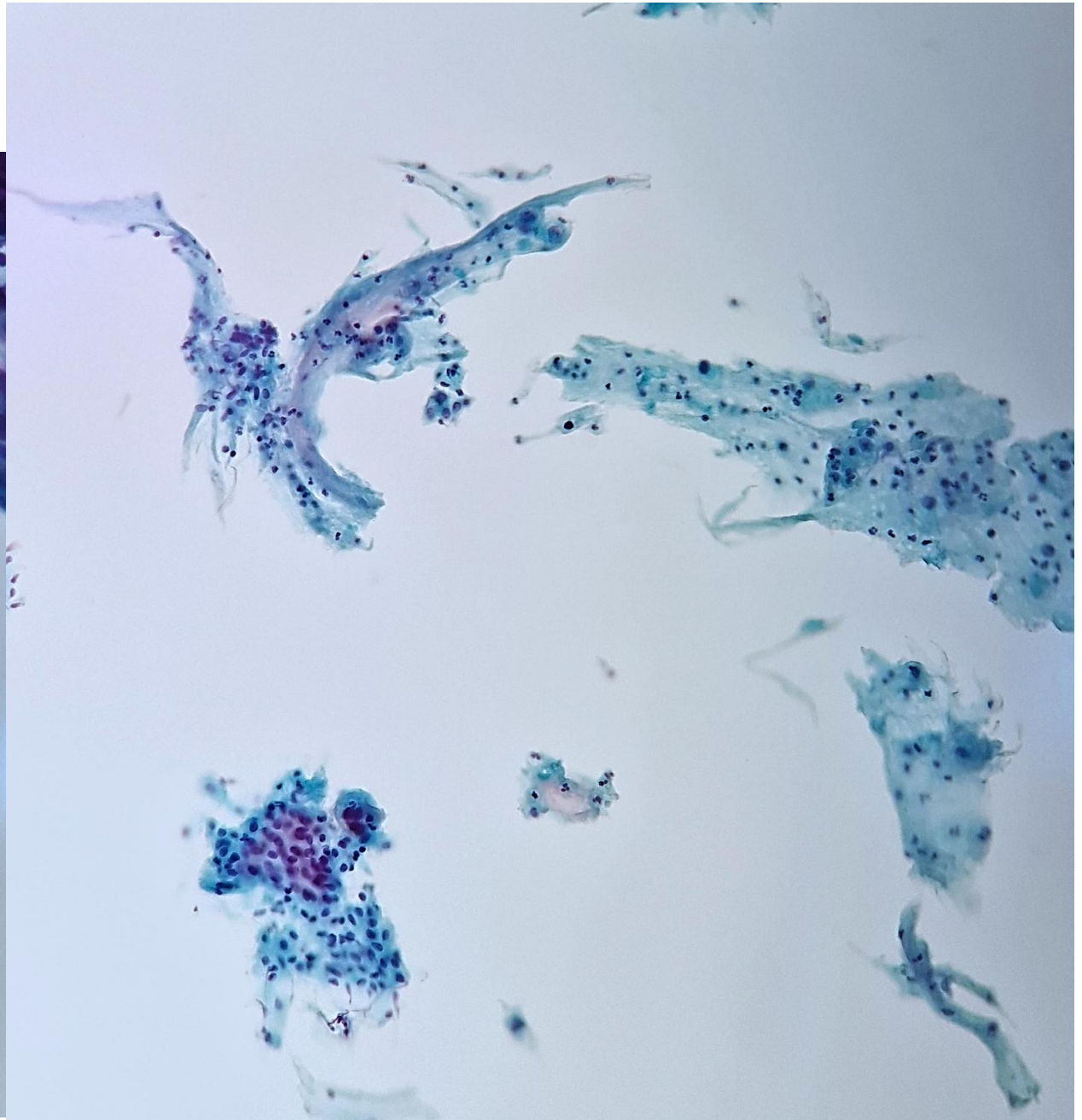
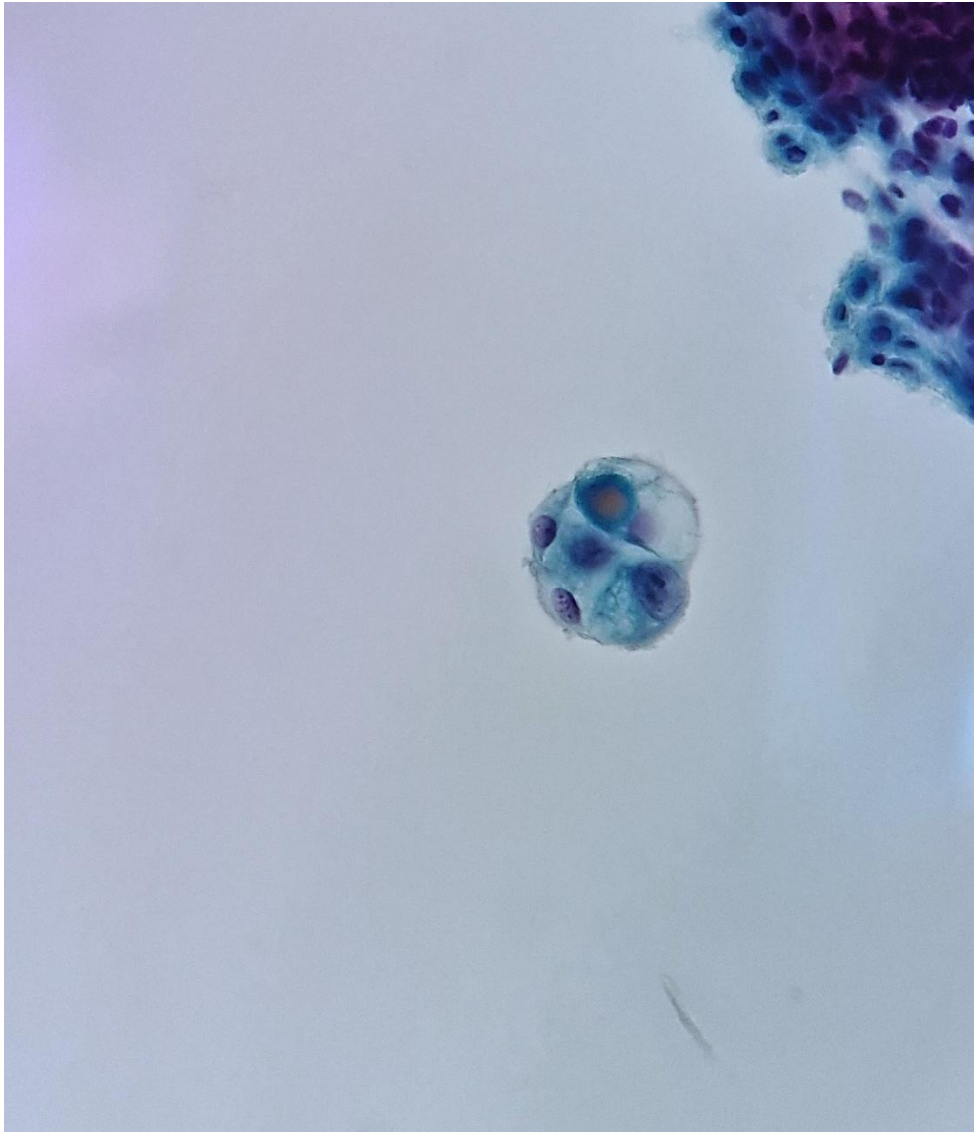
Fig. 6.51 Adenocarcinoma, endometrial (*LBP, ThinPrep*). A 64-year-old woman. Papillary serous carcinomas may resemble their ovarian counterparts and present with papillary groups, large cell size, and prominent nucleoli. Follow-up showed papillary serous adenocarcinoma of the endometrium

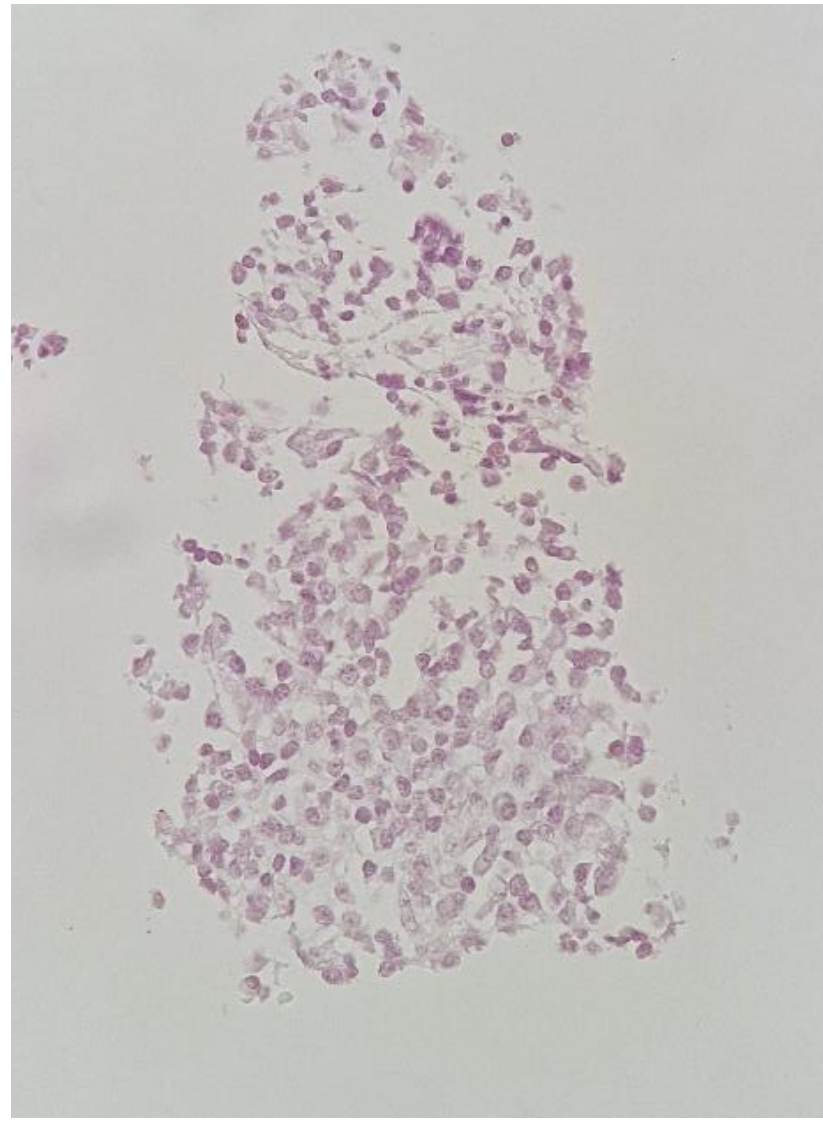
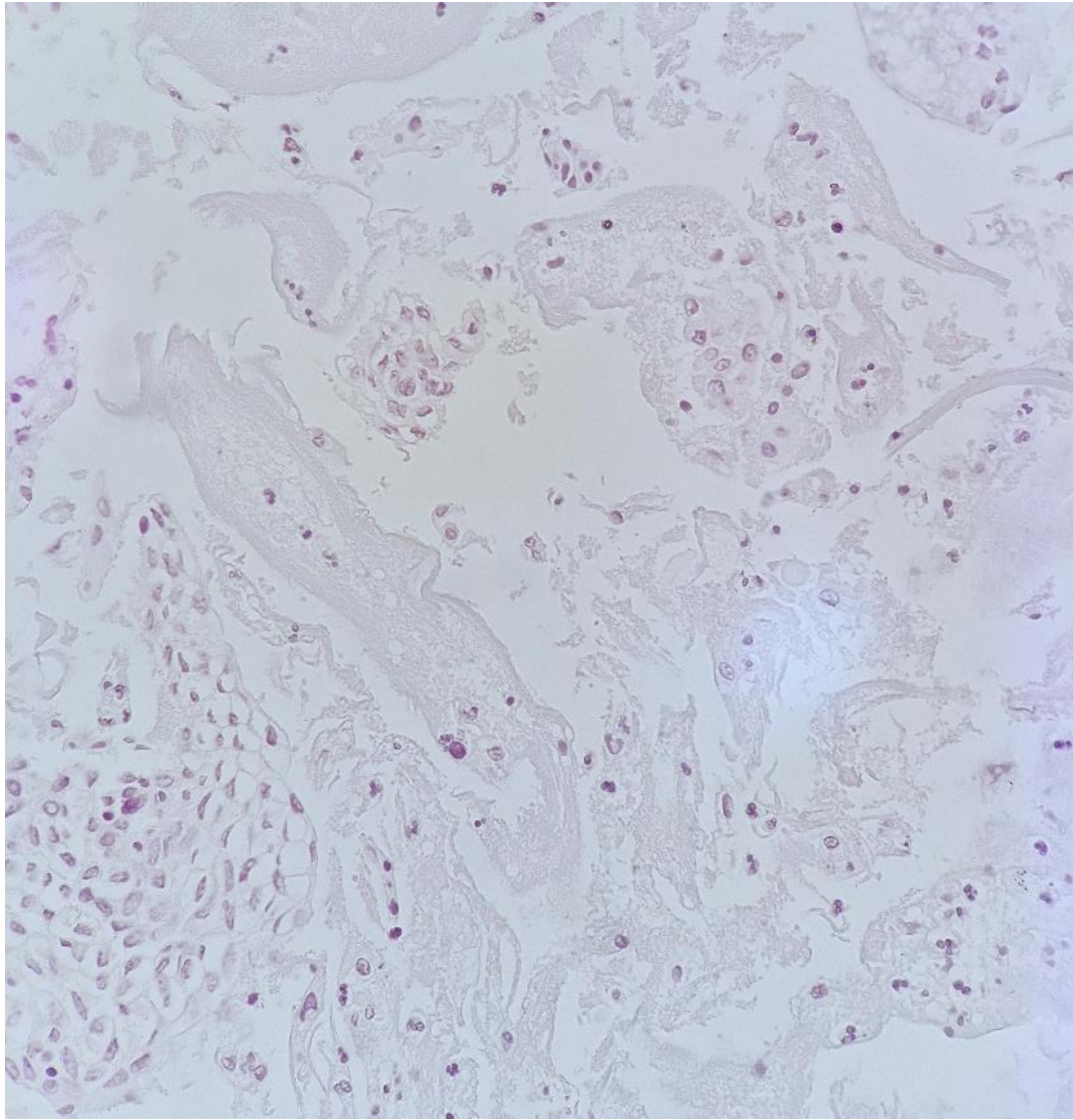
CASE C

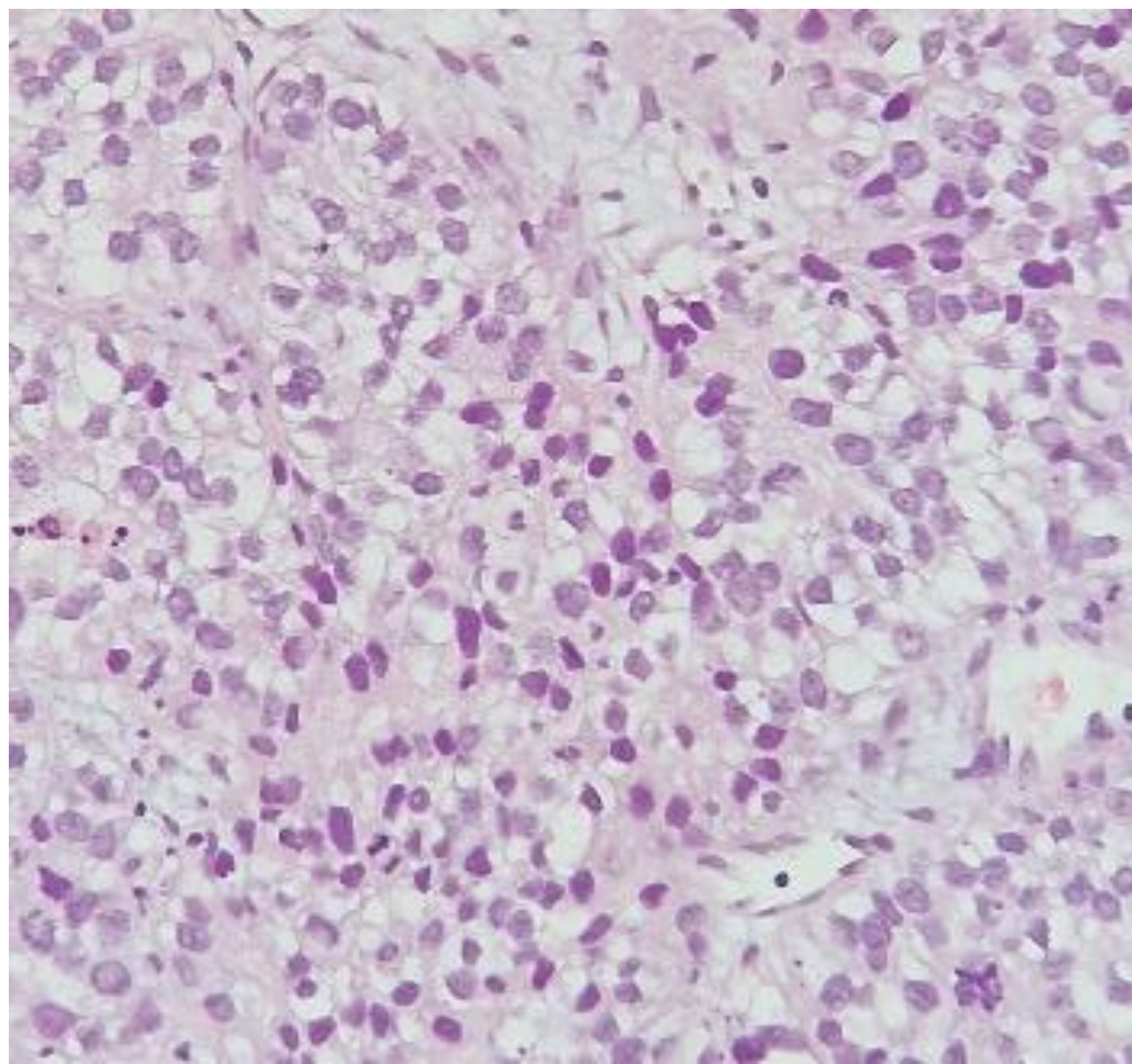
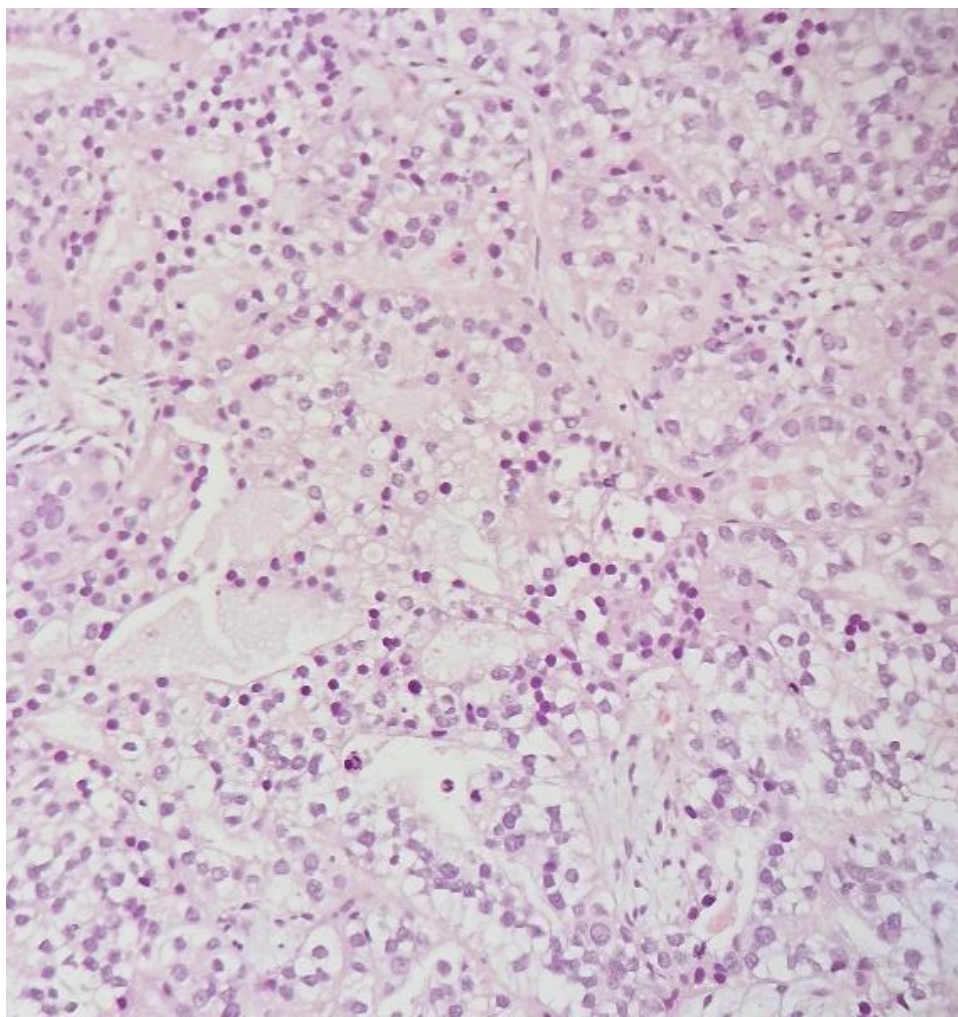
- 83-years old female
- ThinPrep PAP test
- (Postmenopausal vaginal bleeding)

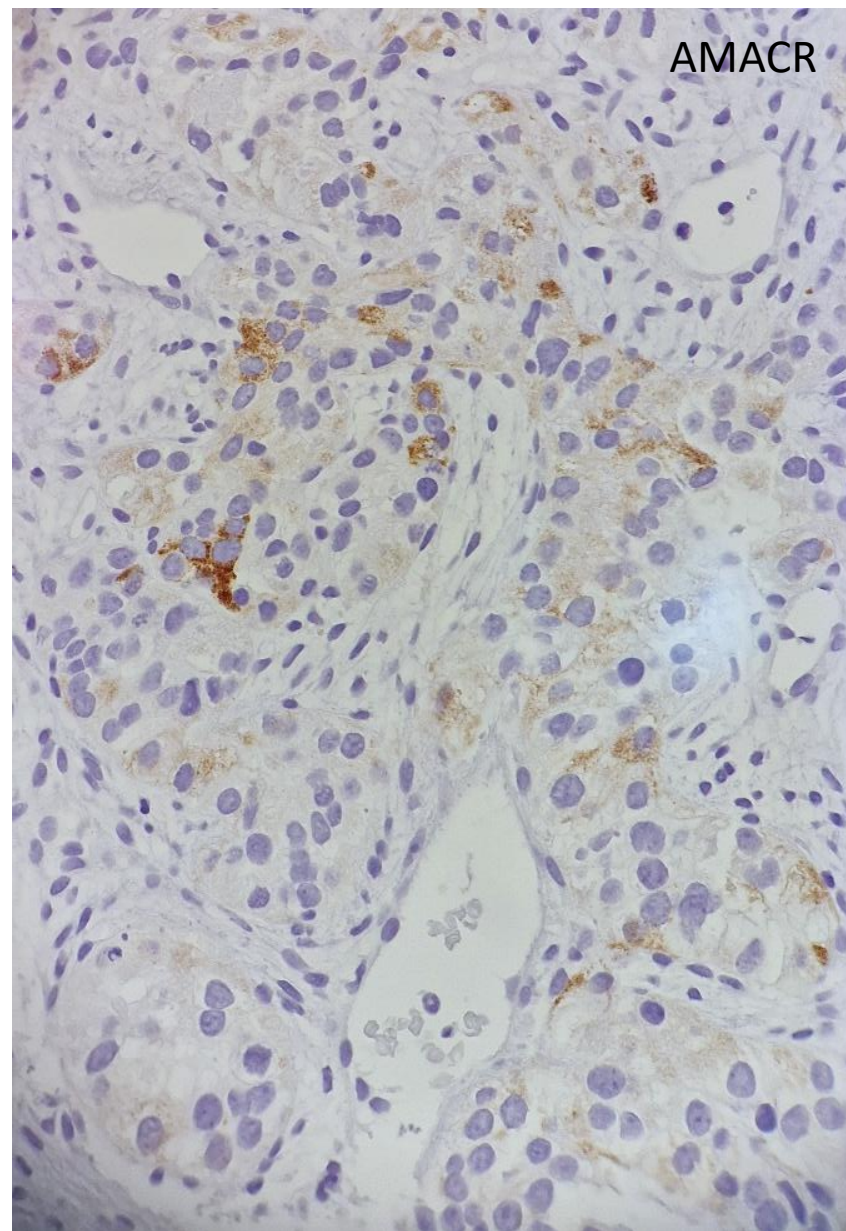
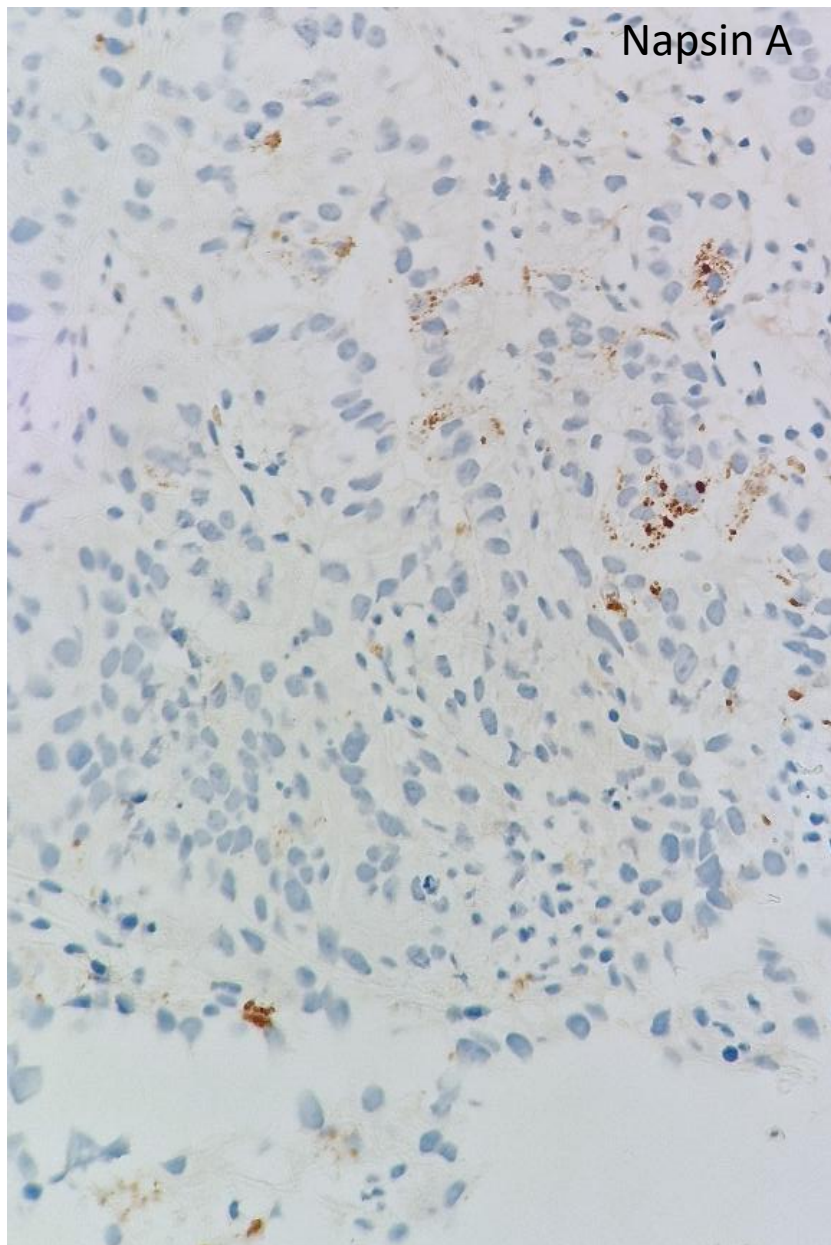


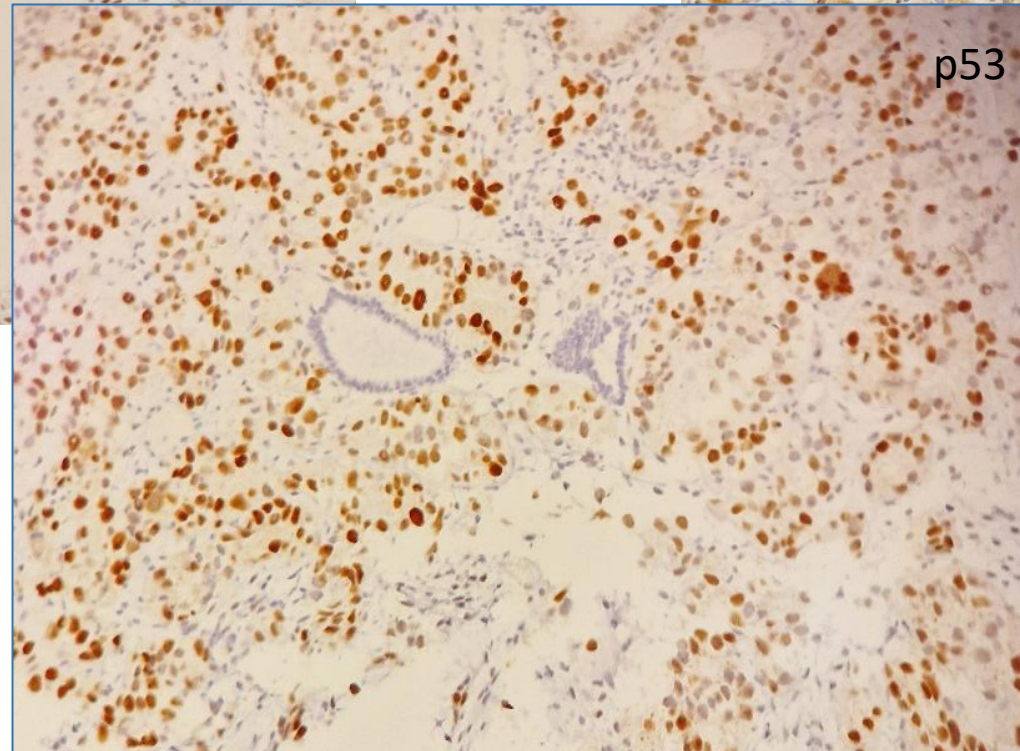
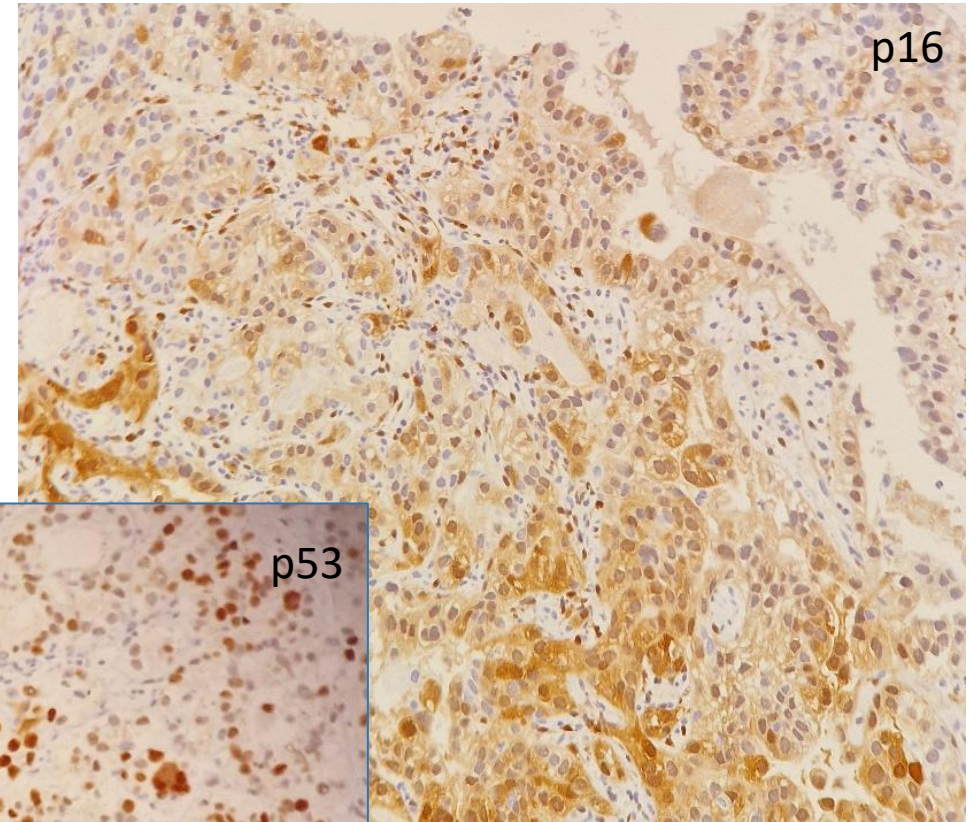
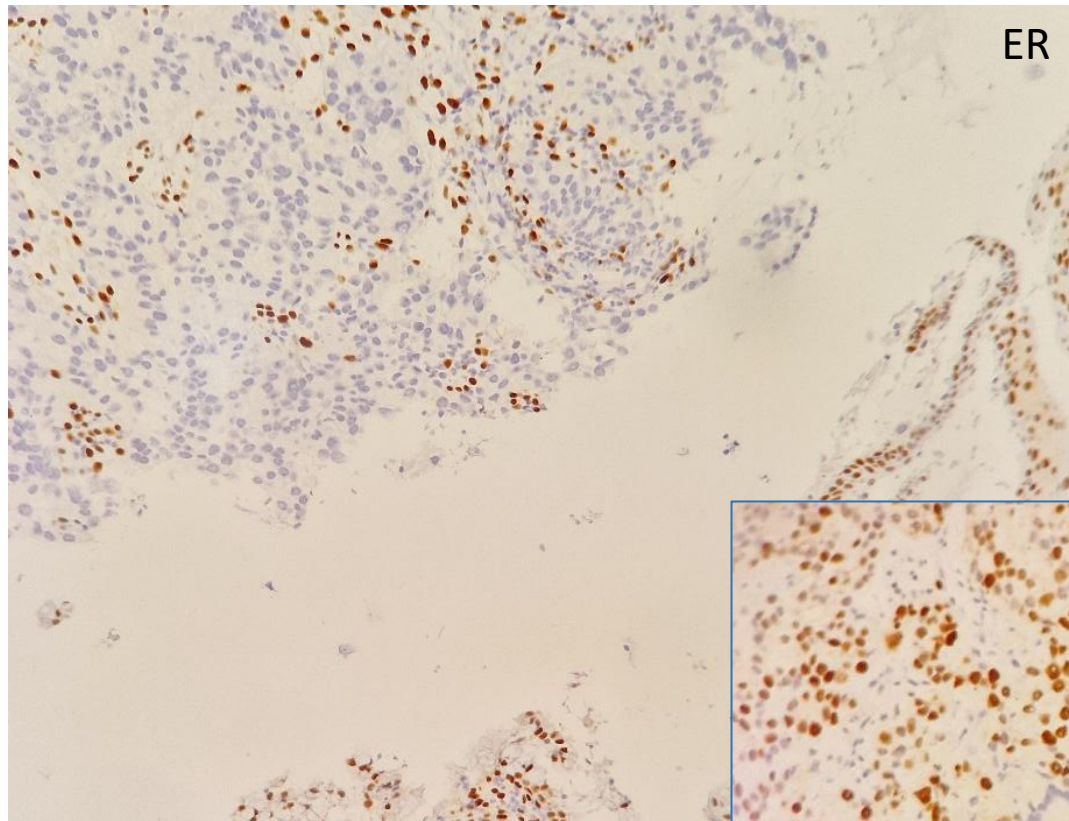
Adenocarcinoma, NOS











Extrauterine Adenocarcinoma

- When cells diagnostic of adenocarcinoma occur in association with a clean (no diathesis) background or with morphology unusual for tumors of the uterus or cervix, an extrauterine neoplasm should be considered.
- Sources still within the female genital tract include the ovary and fallopian tube.
- Although not specific, the presence of papillary clusters and psammoma bodies suggests a Mullerian carcinoma.
- Because they are exfoliated and travel from distant sites, the malignant cells may show degenerative changes. When diathesis is present with a suspected extrauterine tumor, it is usually associated with metastasis or direct extension to the uterus or vagina, most commonly from the colon or bladder.
- Breast cancer may also present in cervical cytologic specimens.
- *Lobular carcinomas that present in a background of atrophy can be particularly problematic to identify.*

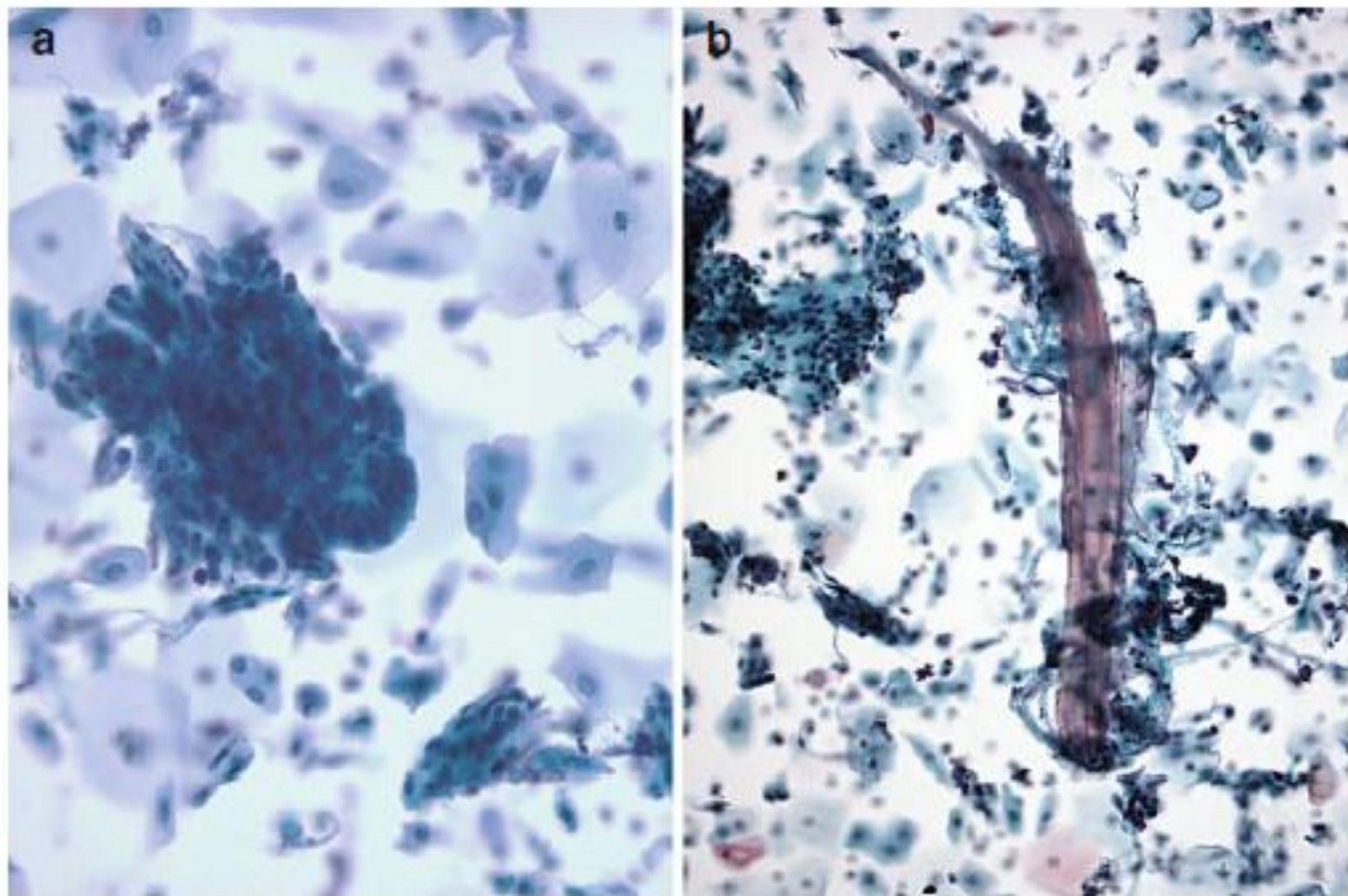


Fig. 6.58 Colonic adenocarcinoma (*LBP, SurePath*). Adenocarcinoma of the colon typically involves cervical specimens by direct invasion. (a) A columnar architecture can closely mimic endocervical adenocarcinoma. (b) The presence of background vegetable material (fecal material) is a clue to the diagnosis

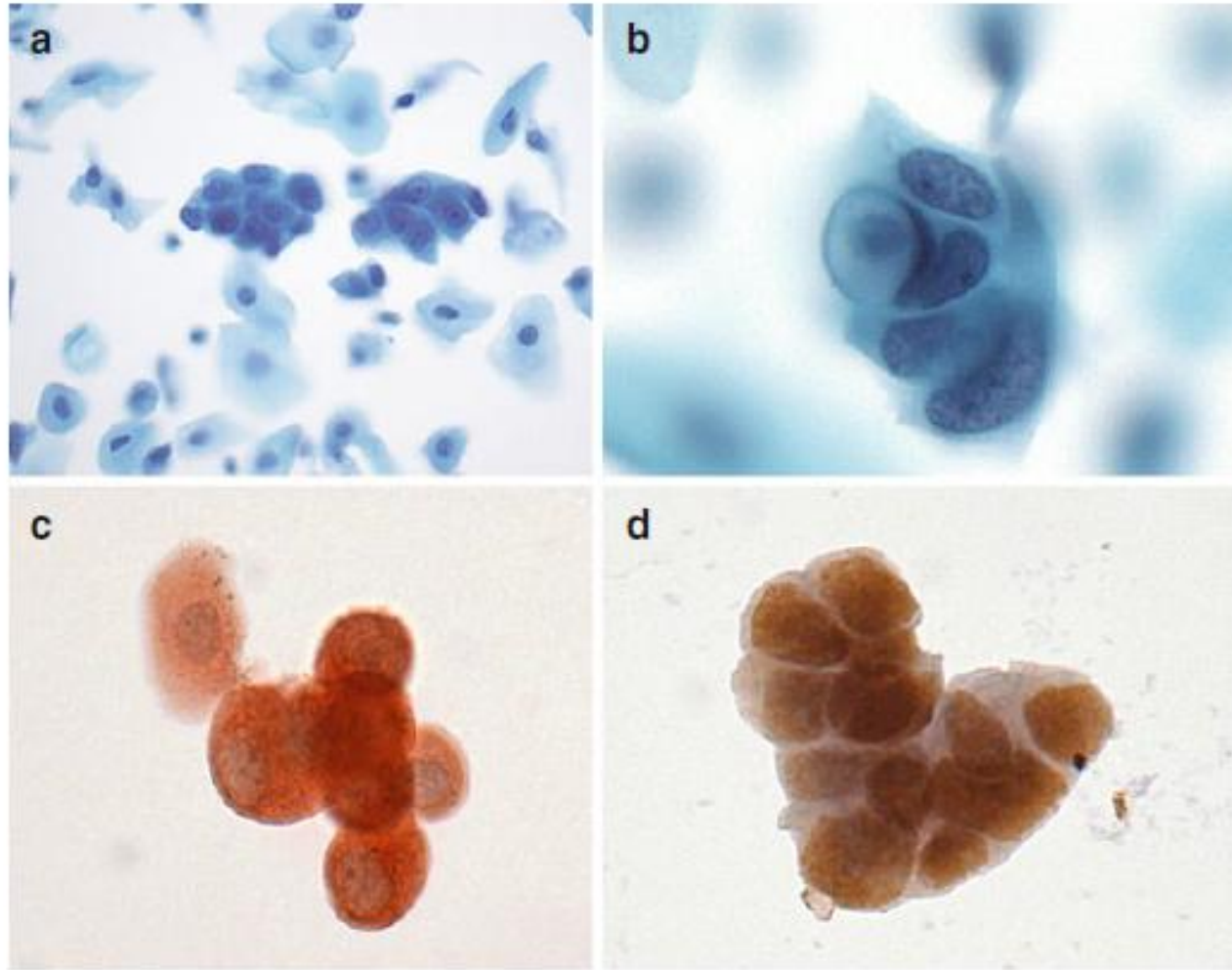


Fig. 6.59 (a–d) These are images of lobular breast carcinoma (*LBP, SurePath*). Lobular breast cancers presenting in an atrophic background can be challenging. (a) Small clusters of cells and (b) individual cells with mucin vacuoles contrast with a background of parabasal cells. Confirmation with immunostains can be helpful, including (c) gross cystic disease fluid protein 15 and (d) estrogen receptor immunocytochemistry

Features	Endocervical Ca	Endometrial Ca	Extrauterine Ca
Cellularity	Hypercellular	Low cellularity usually	Rare cells (unless direct extension/mets)
Pattern	Strips, rosettes, sheets with feathering, single malignant cells	Small clusters, rarely papillae, single cells	Varies depending upon primary and mode of spread
Diathesis	Visible, type varies by preparation	Variable, watery or subtle or absent	Usually absent unless direct spread or mets
Cell shapes	Oval, columnar, pleomorphic	Round, irregular, usually smaller	Variable, do not belong
Nuclei	Oval, elongated, pleomorphic, vesicular	Round, irregular in higher grade	Variable
Cytoplasm	Mucin +	Degenerative vacuoles	Variable
SIL or Sq Ca	Present in >50 %	Absent	Absent
High-risk HPV	Positive in most	Negative	Negative
p16	Block positive	Patchy/focal except in high grade/serous	Variable, depends on type

Adapted from Mody [11]

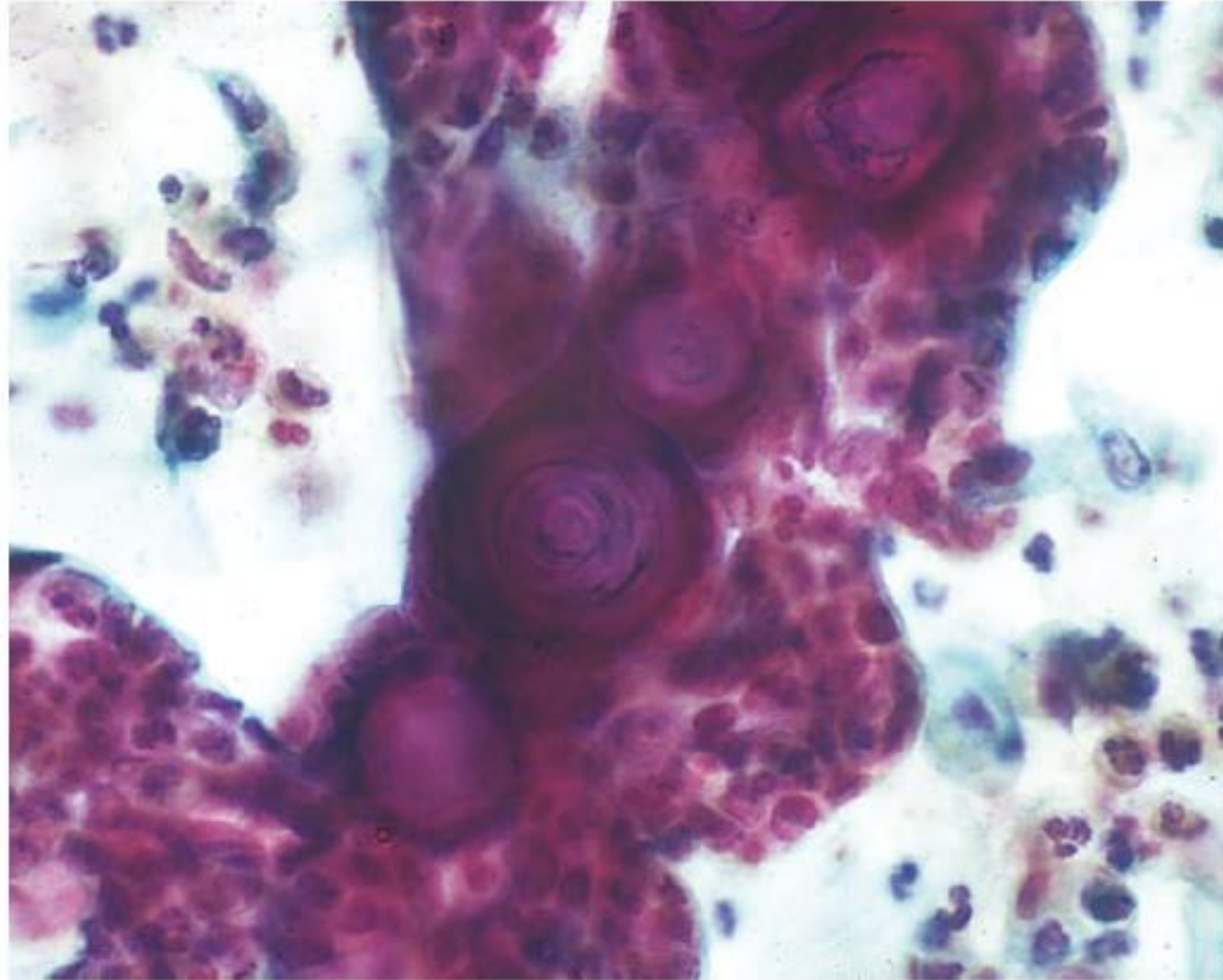
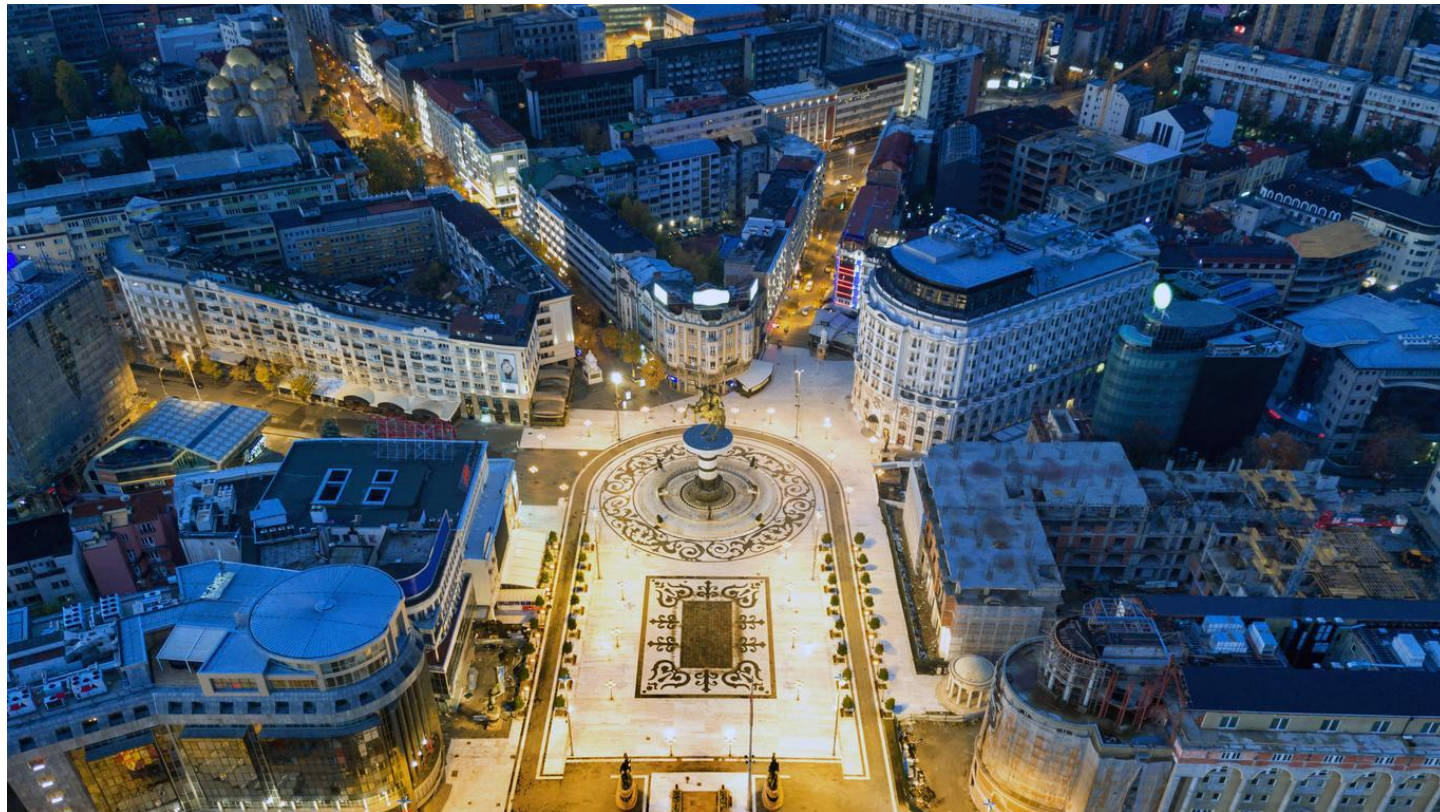


Fig. 6.55 Adenocarcinoma, extrauterine (CP). A 70-year-old woman with large pelvic mass and ascites. Ovarian/tubal/peritoneal carcinoma may be characterized by papillary configurations and psammomatous calcifications (psammoma bodies). Follow-up showed an ovarian primary



Thank you



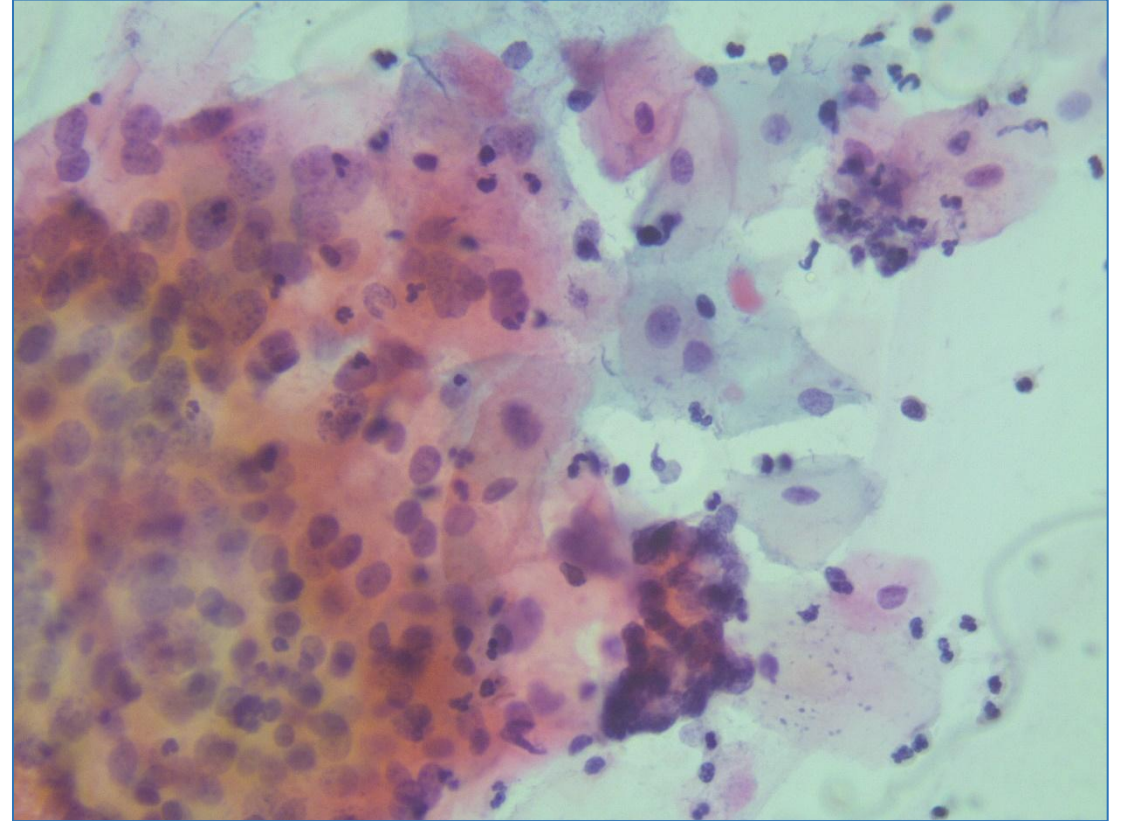
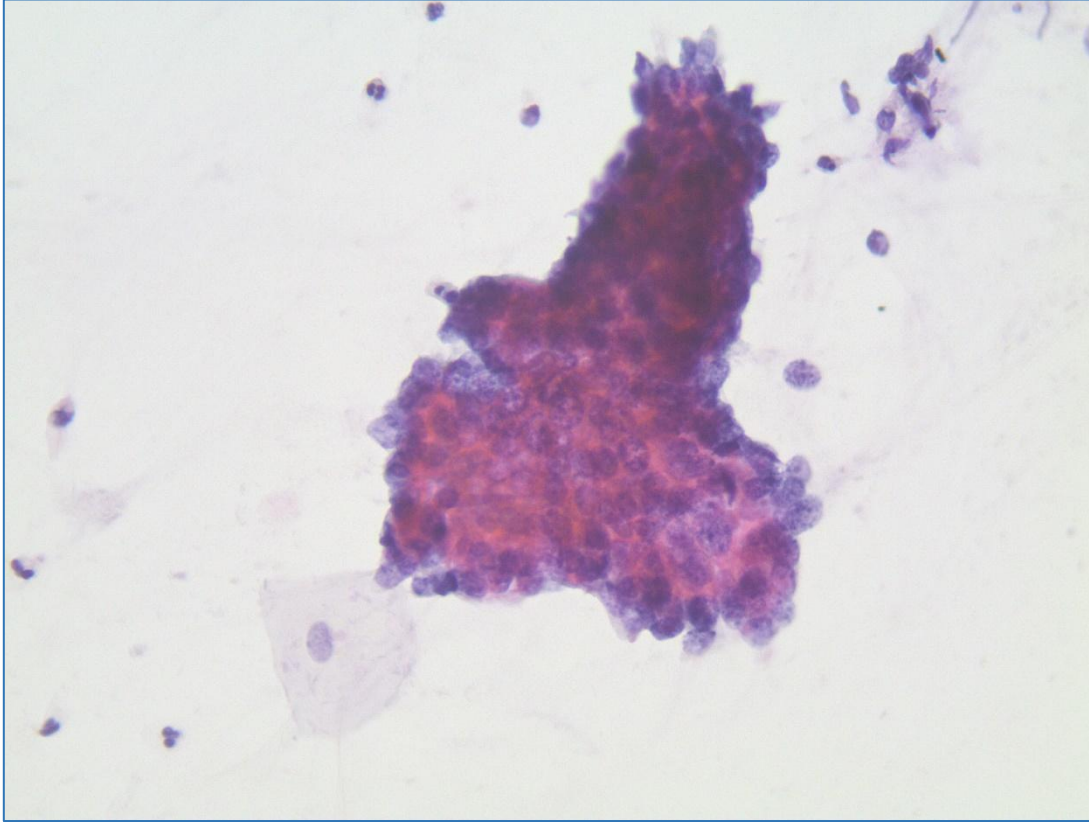
Case presentations



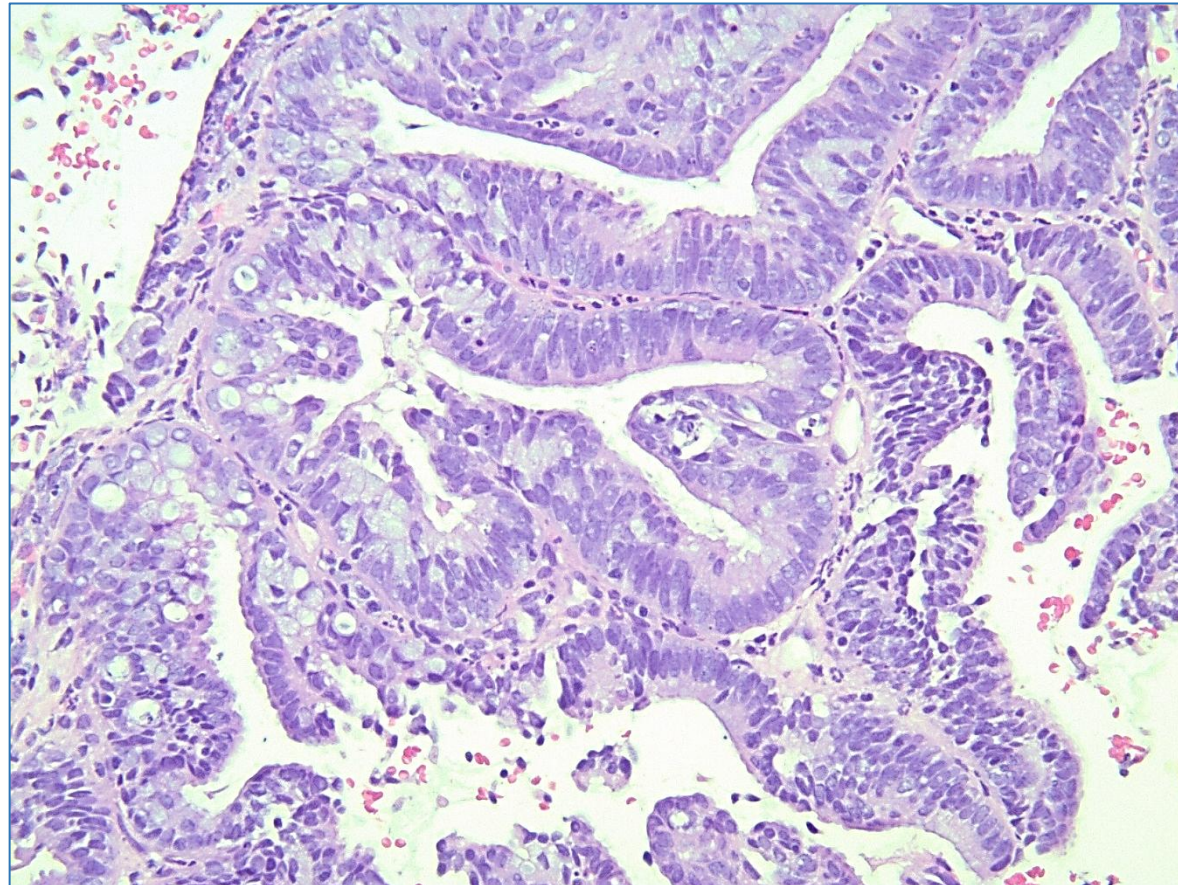
CASE 1

- 27 years old
- Gravida 1
- Initial presentation with watery discharge

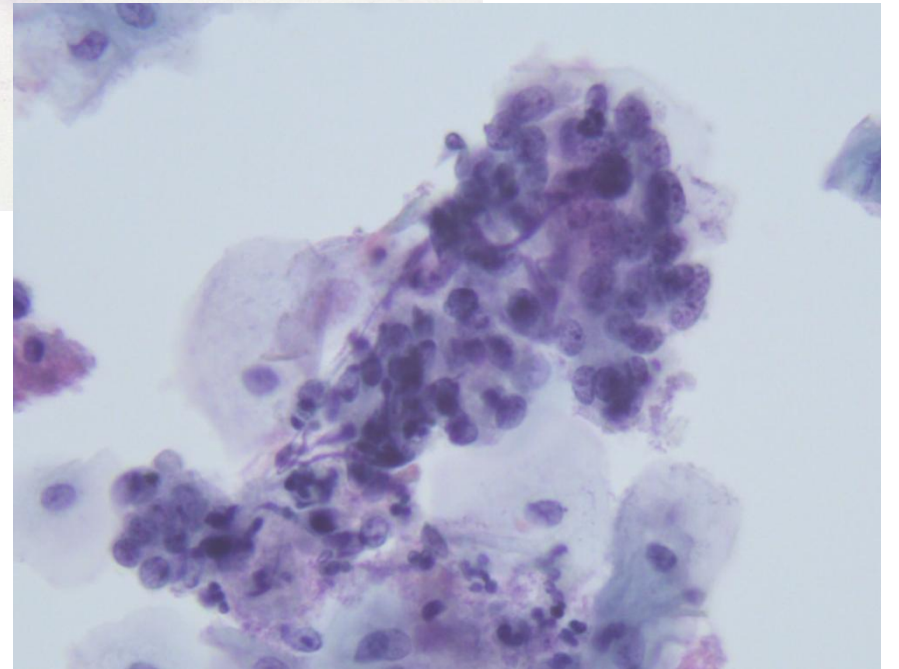
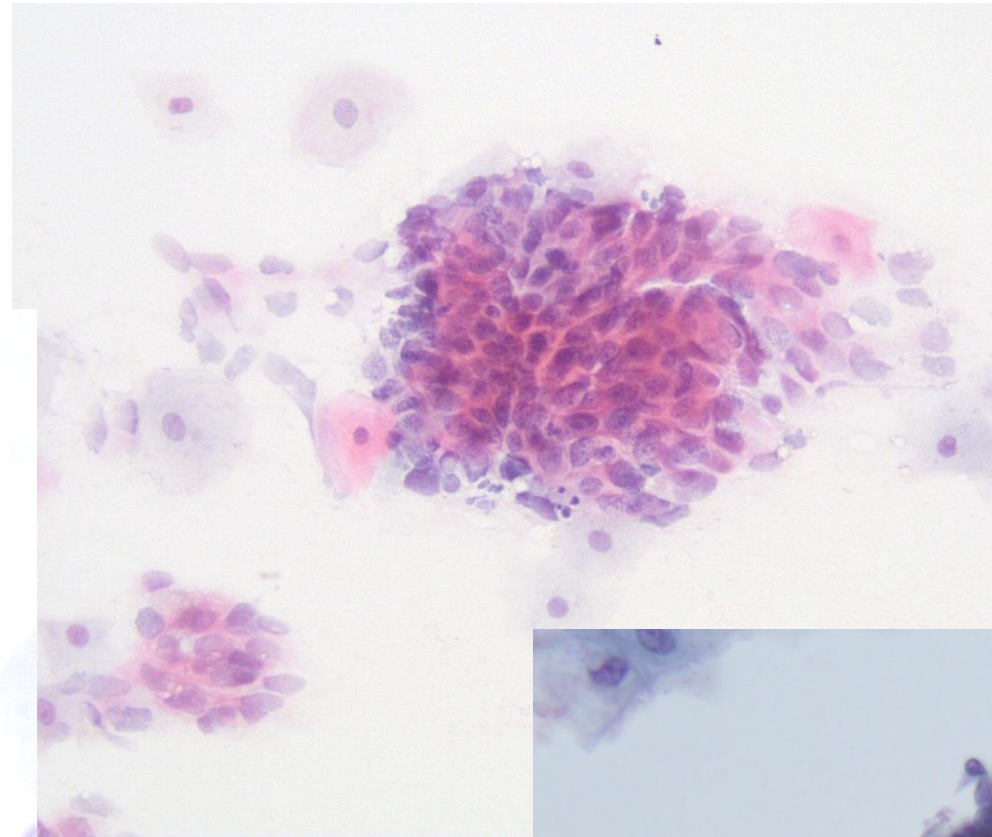
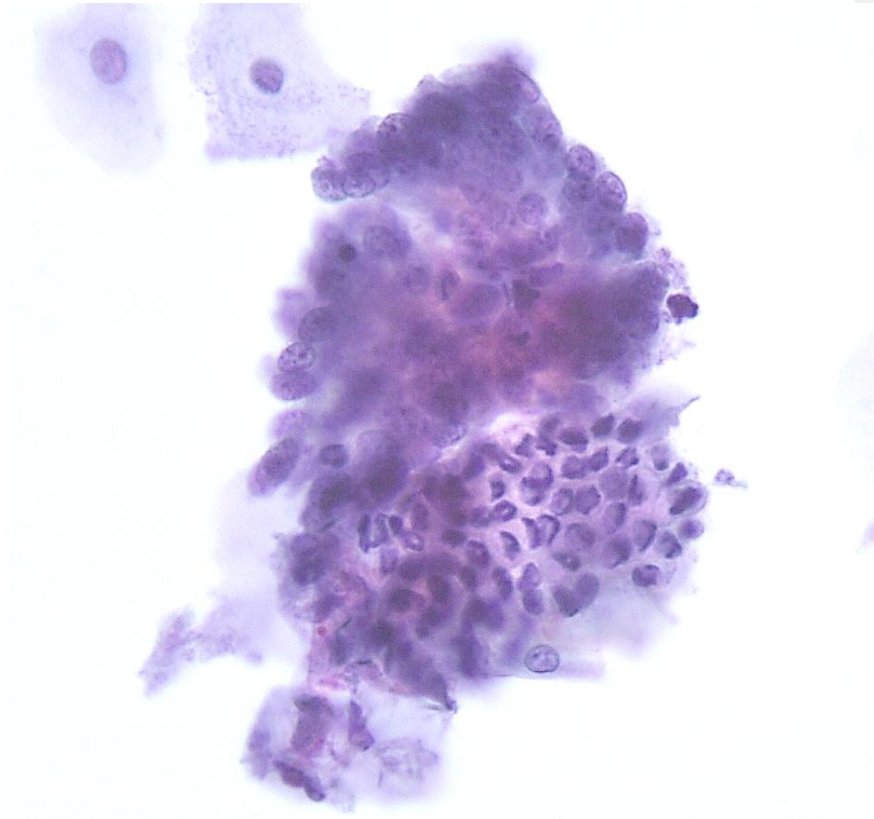
2014 Conventional PAP test result: HSIL (CIN3)



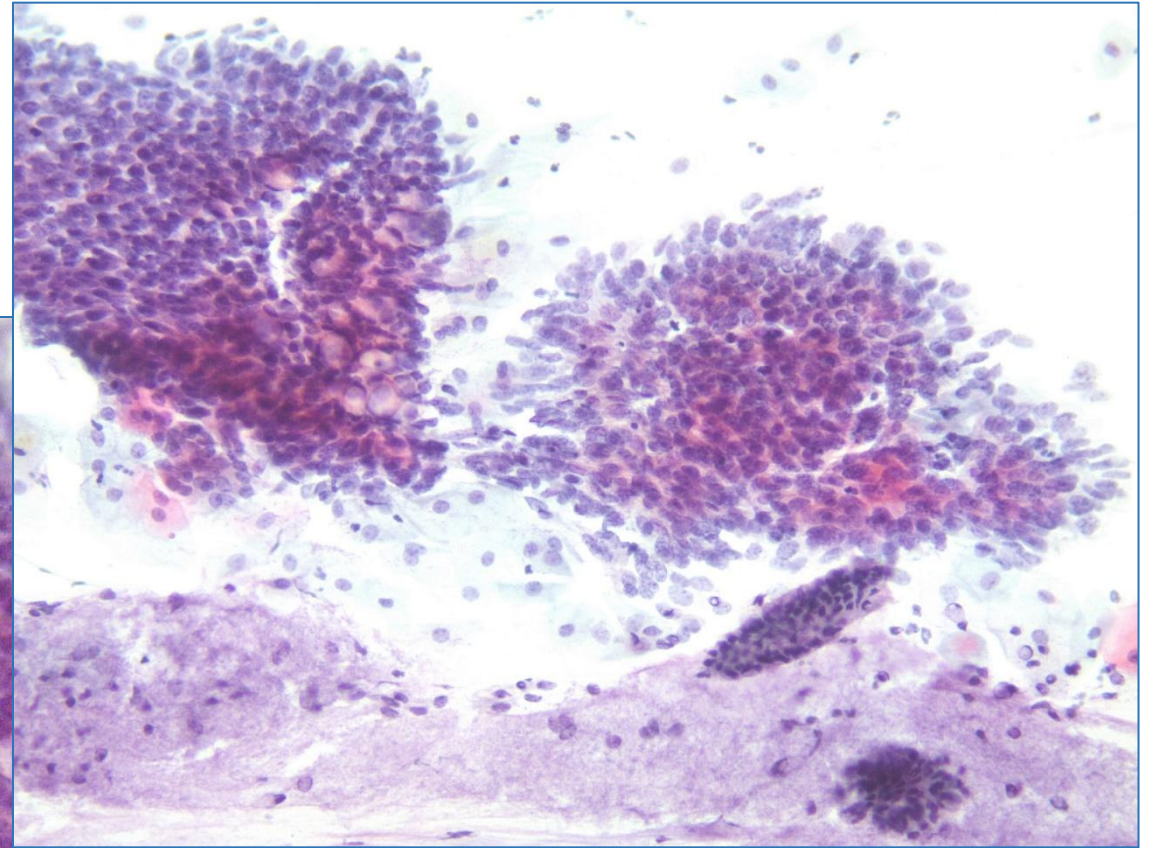
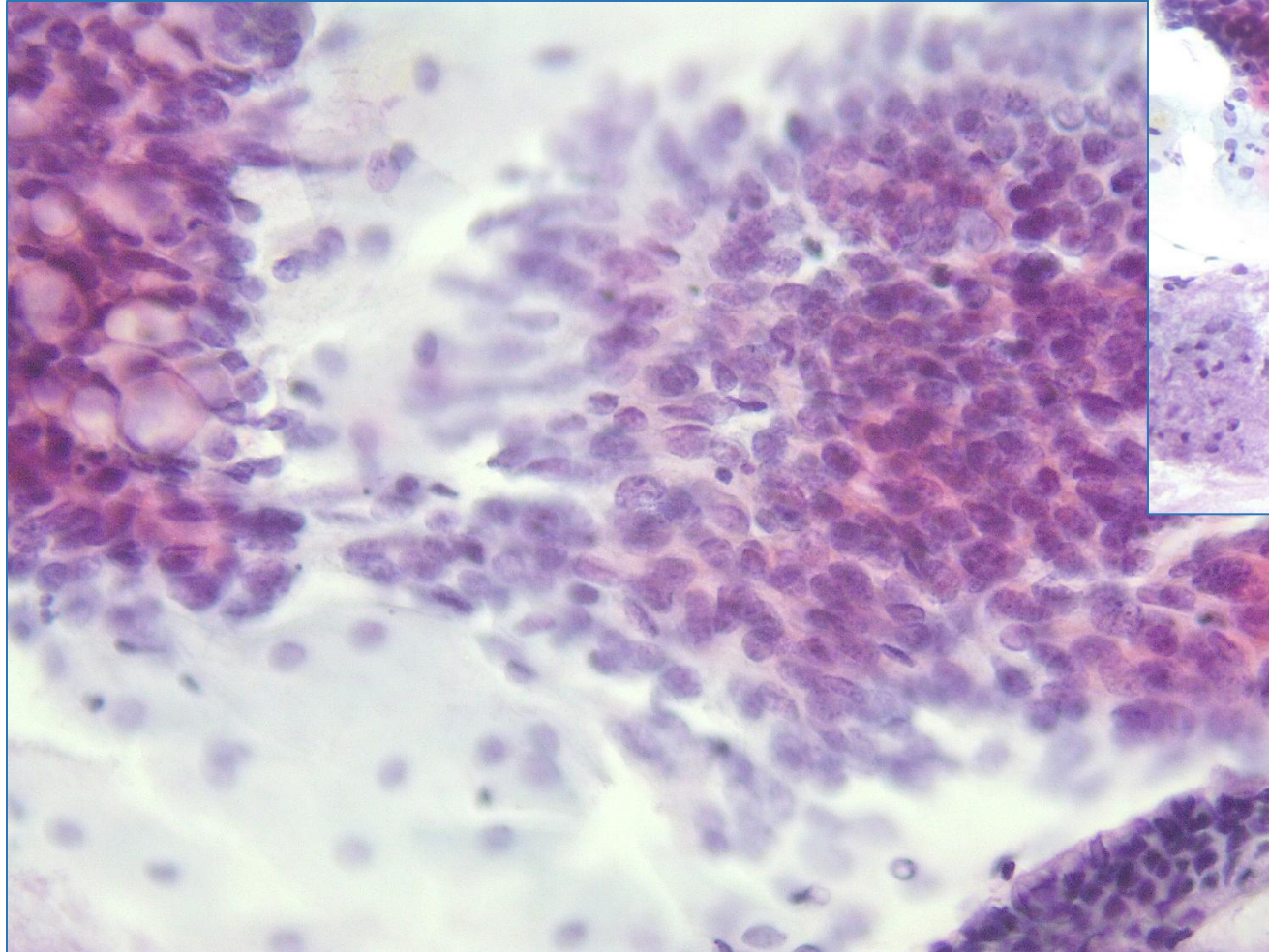
2014 Early invasive adenocarcinoma of the uterine cervix, HPV-associated (HPV type 33). High grade squamous intraepithelial lesion (severe dysplasia). Cone margins free of tumor or dysplasia



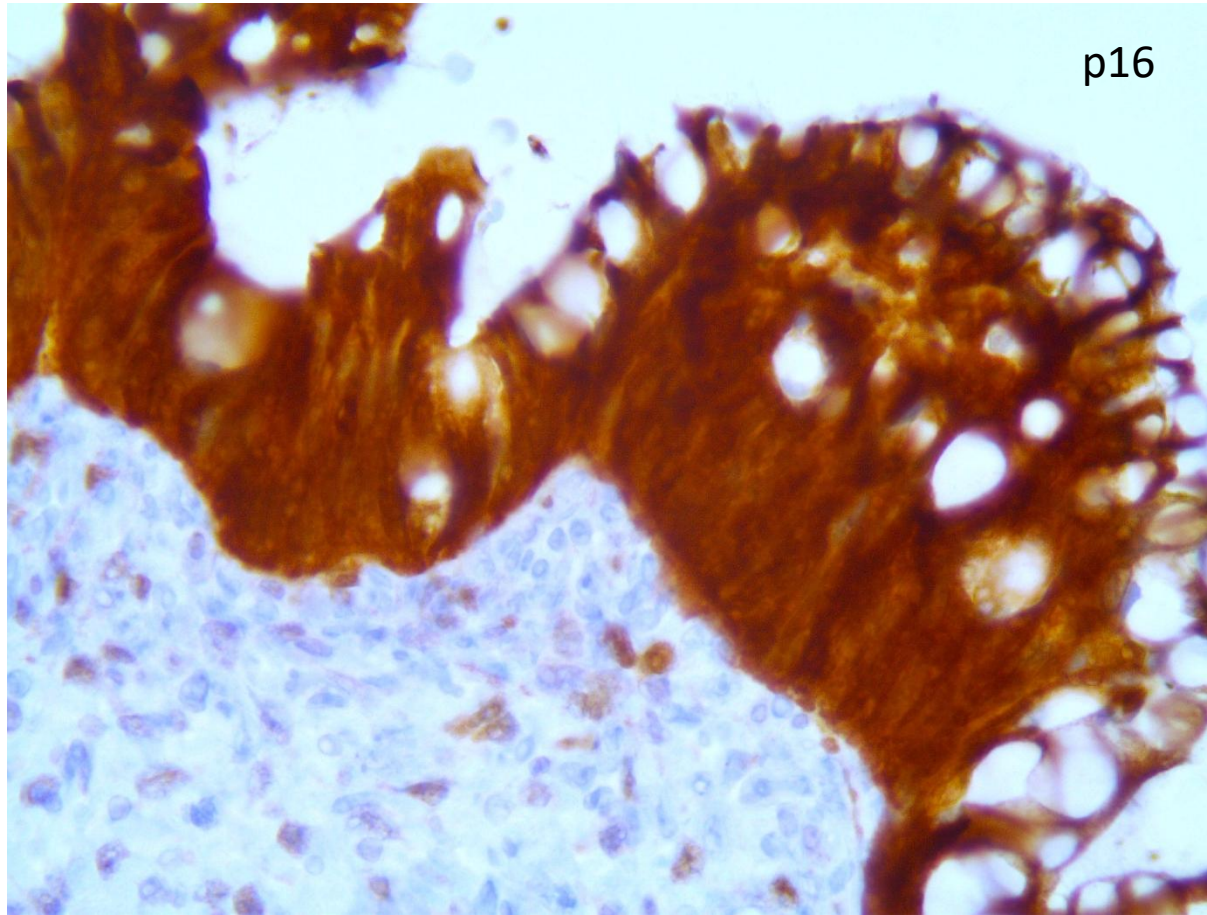
2016 PAP test
result: AGC



2016



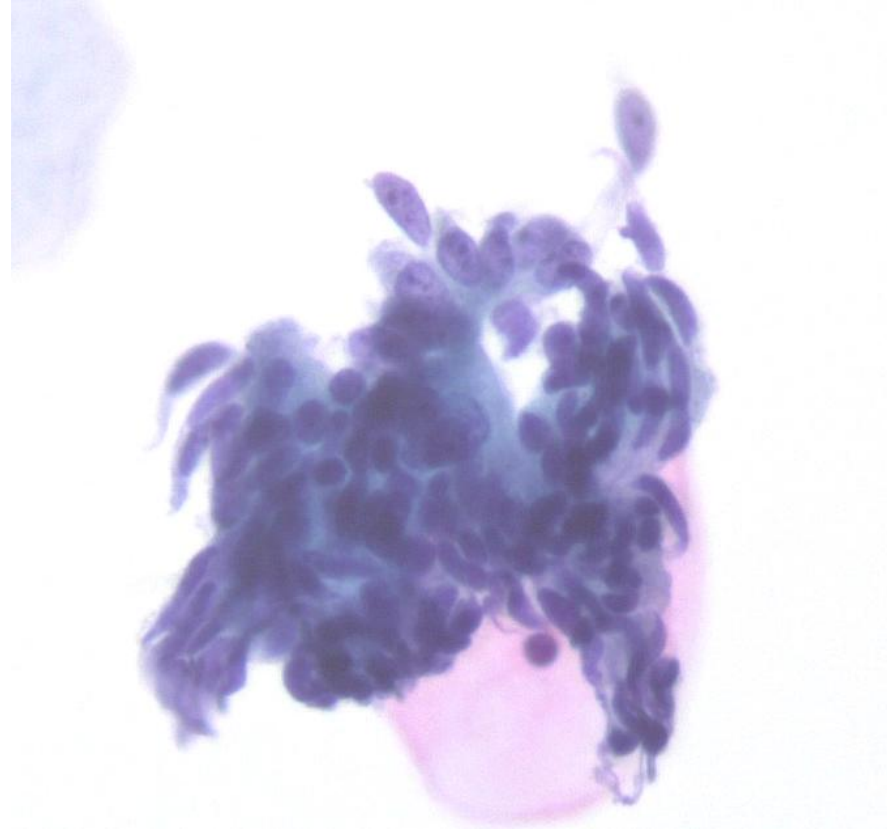
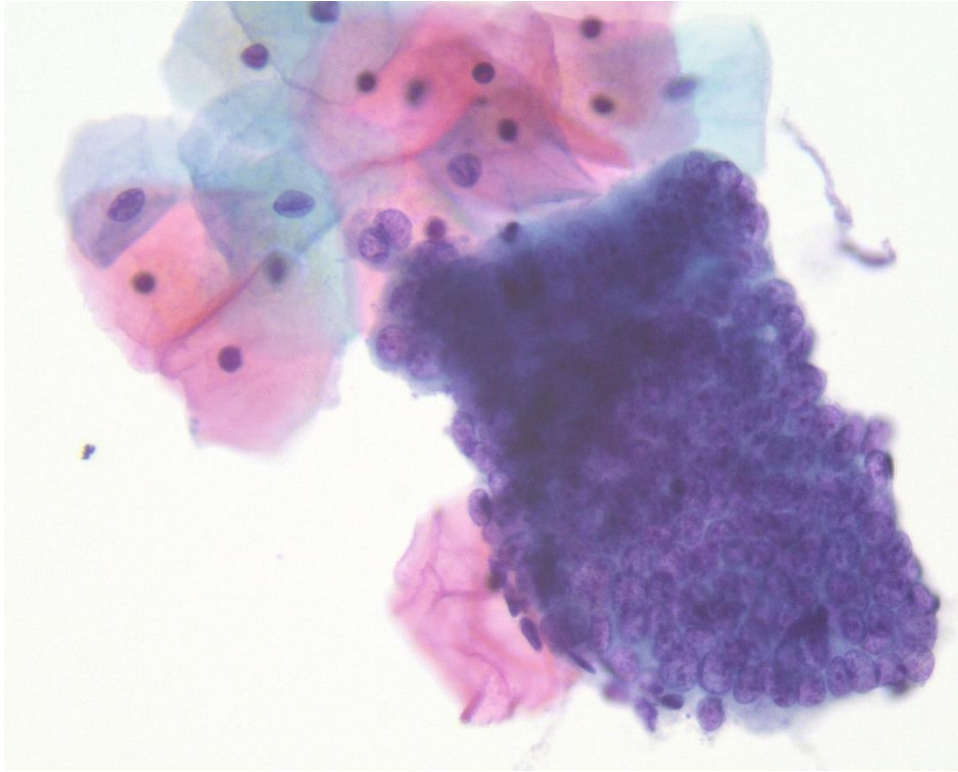
2021-Adnexectomy; Mucinous carcinoma of the ovary (metastatic?, p16+)



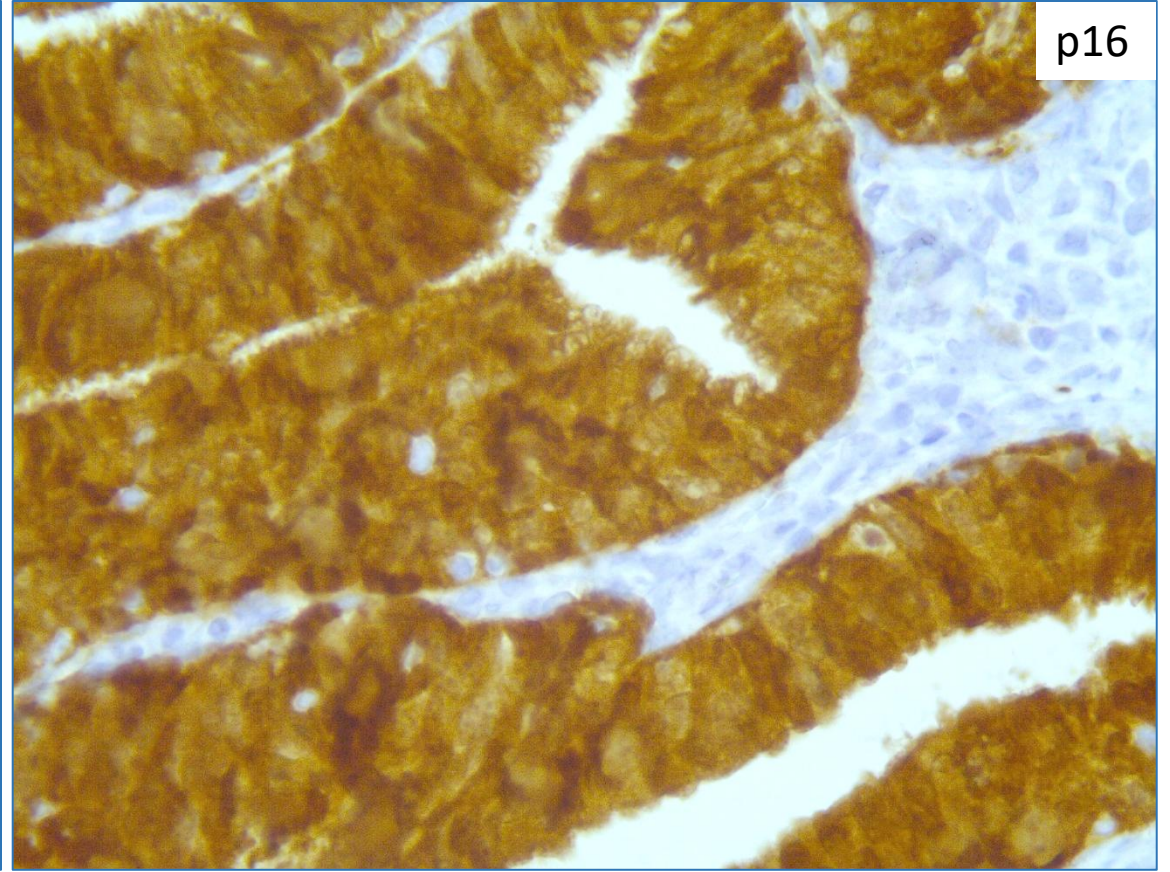
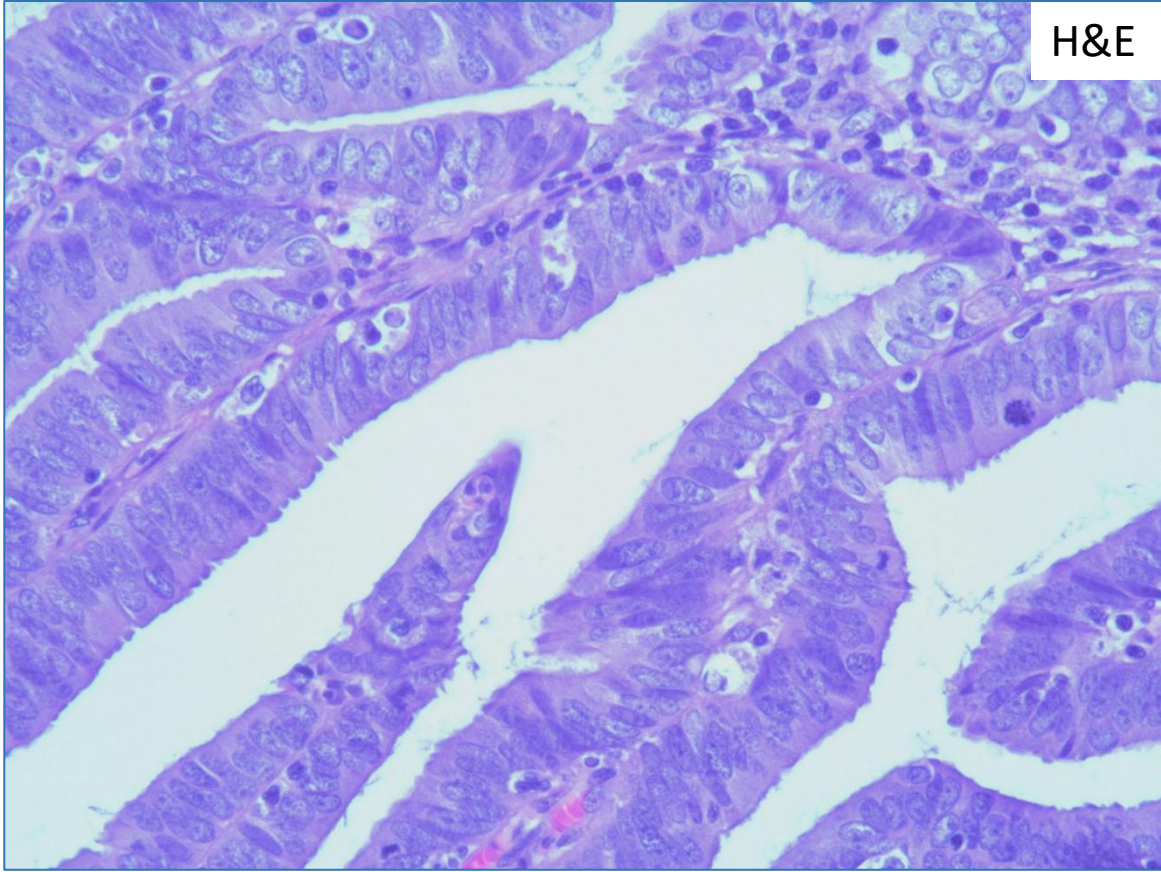
CASE 2

- 36 years old
- para 1
- Initial presentation with acido-white epithelium.

Conventional PAP test result: AGC



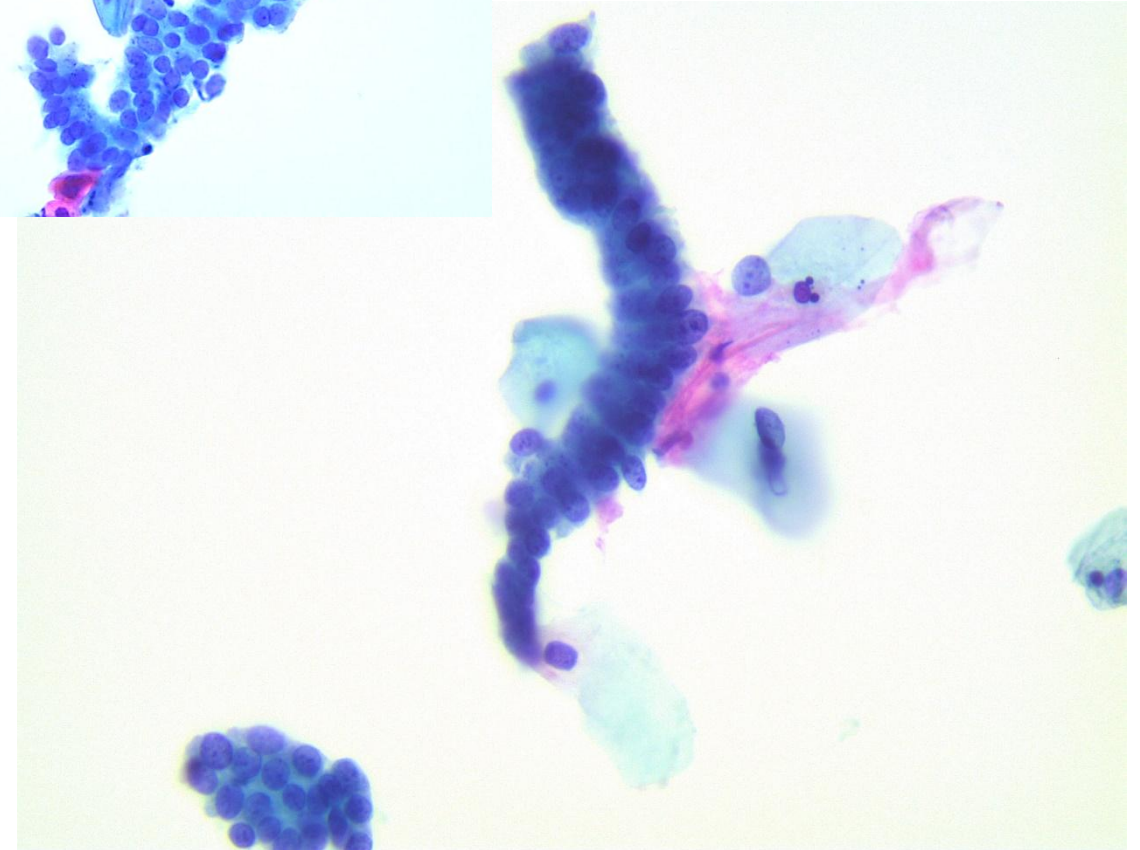
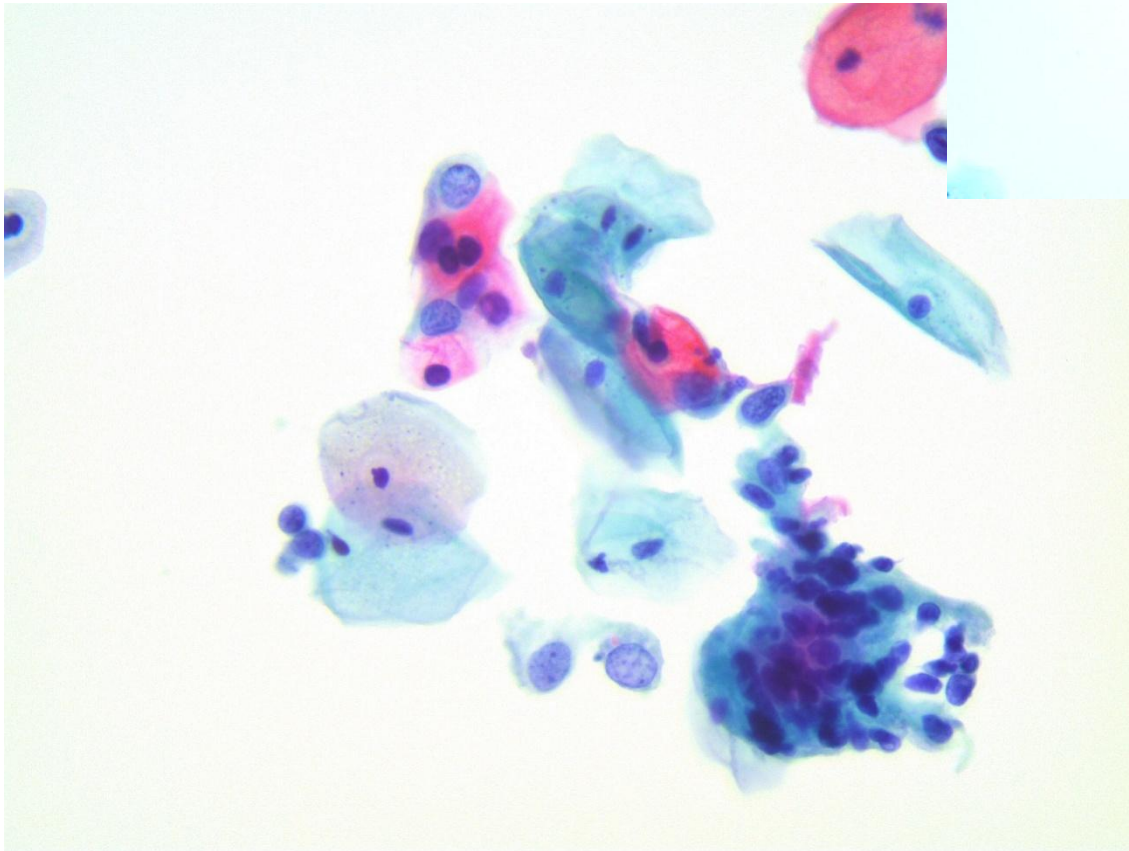
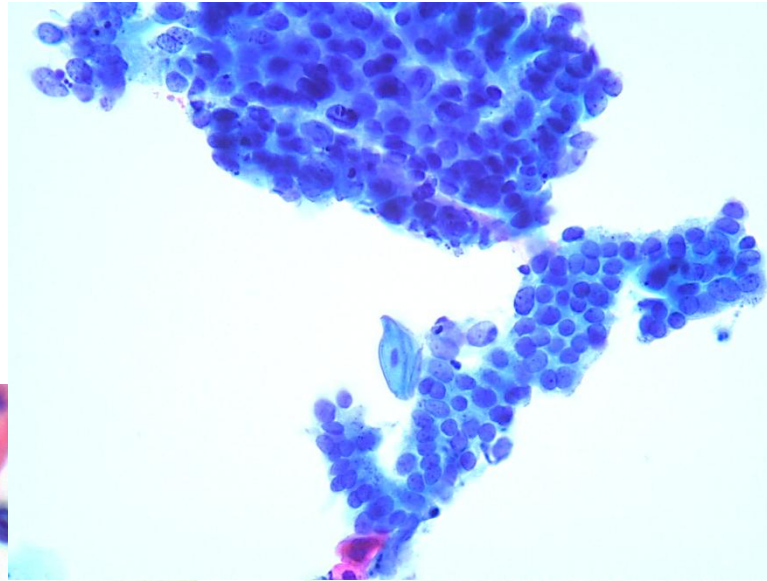
Adenocarcinoma in situ of the uterine cervix on biopsy , invasive adenocarcinoma, HPV-associated (HPV type 18). Endocervical cone margin involved.



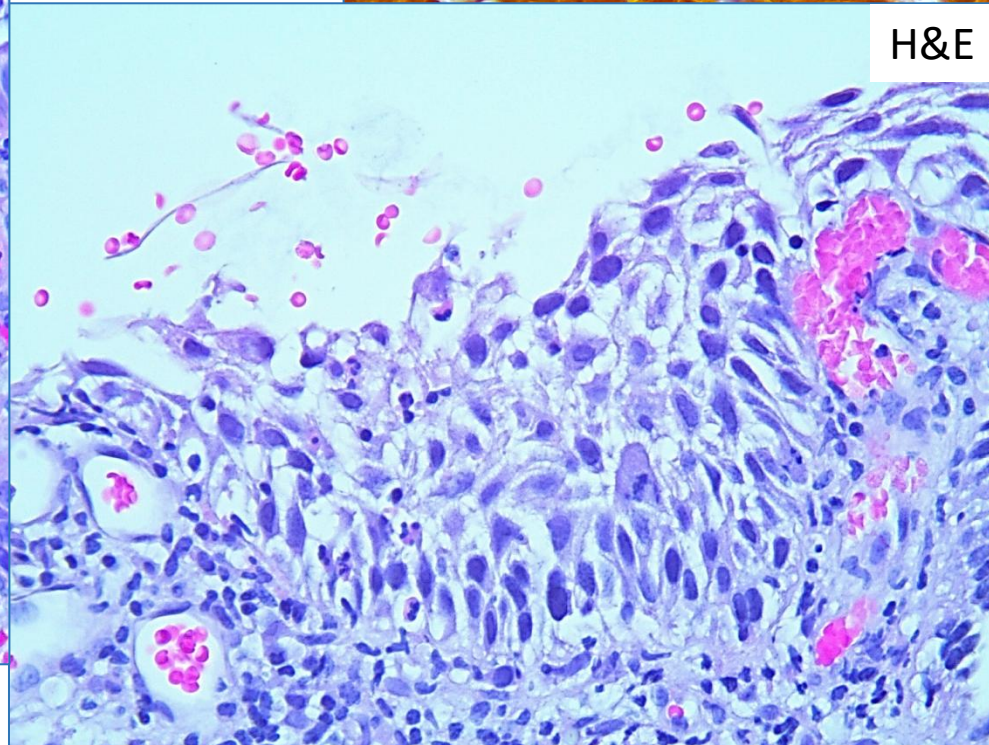
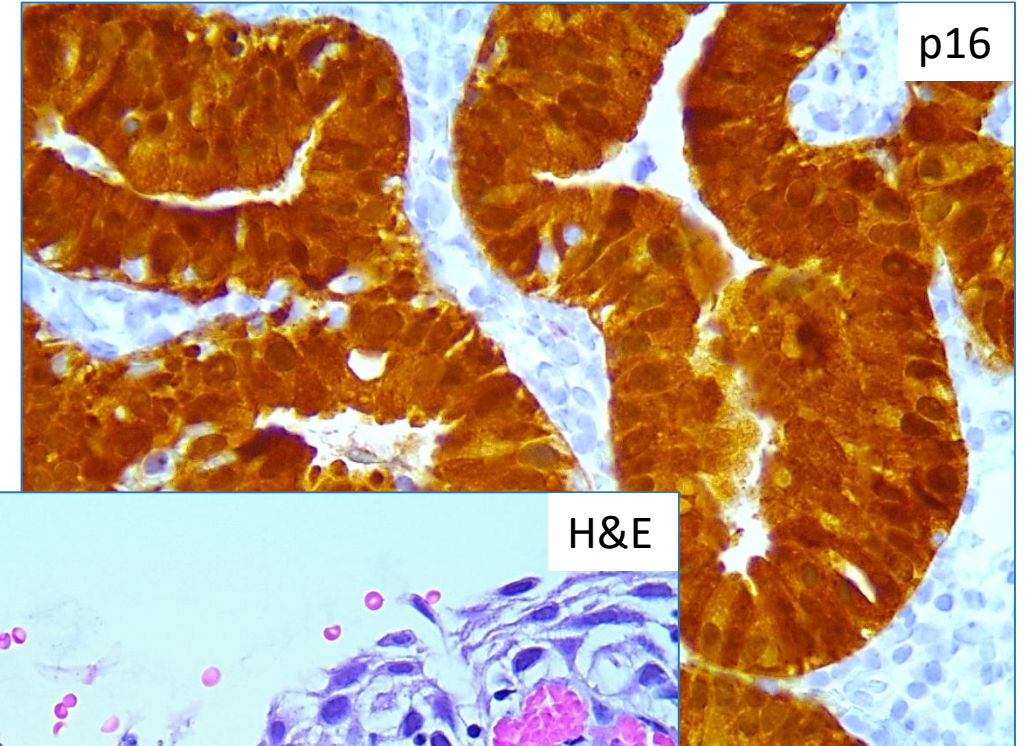
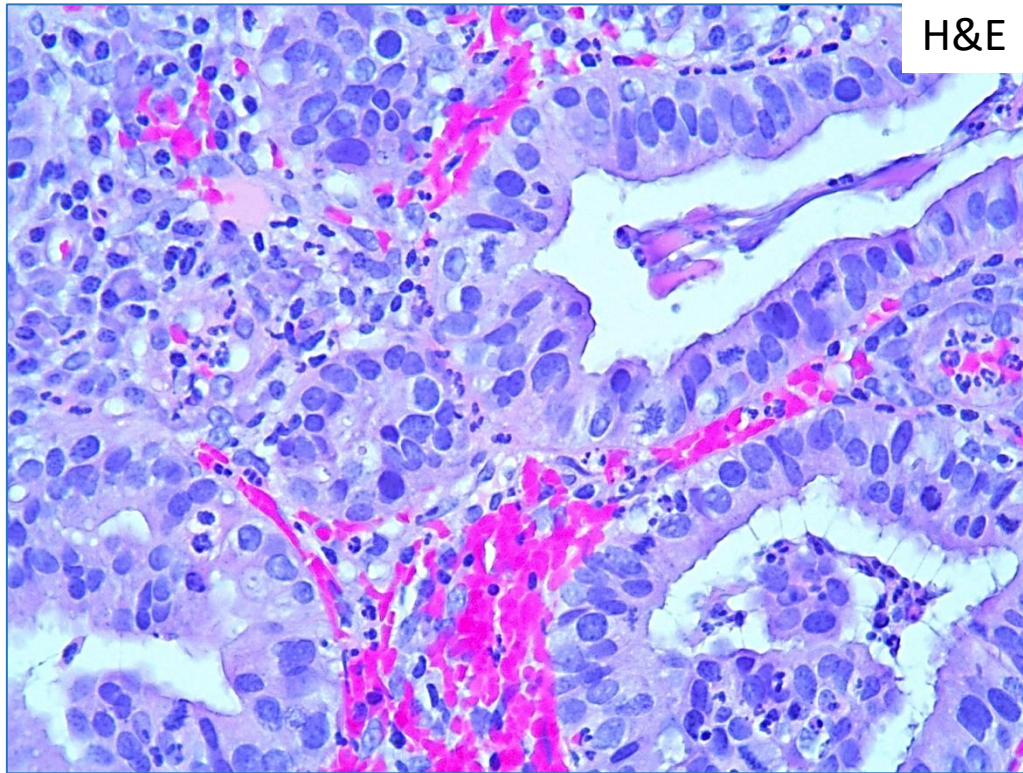
CASE 3

- 42 years old
- para 1?
- Routine check up (previous PAP test result NILM (two years before)).

LBC PAP test result:
HSIL (AGC?)



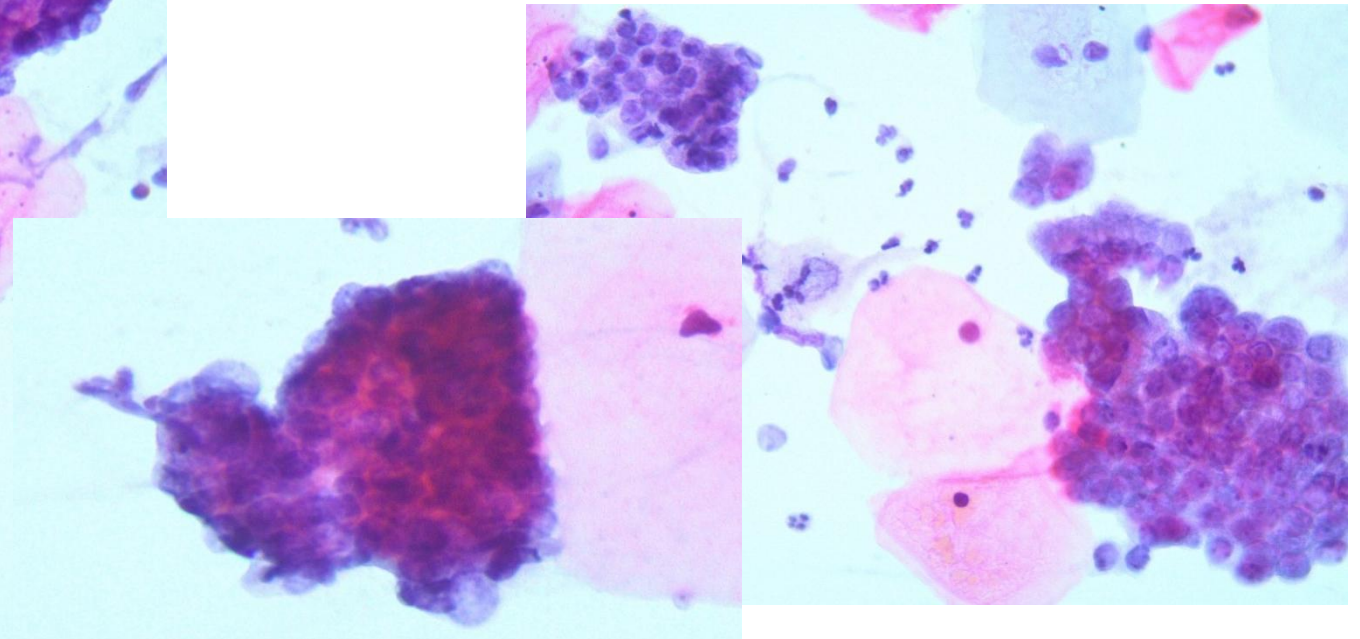
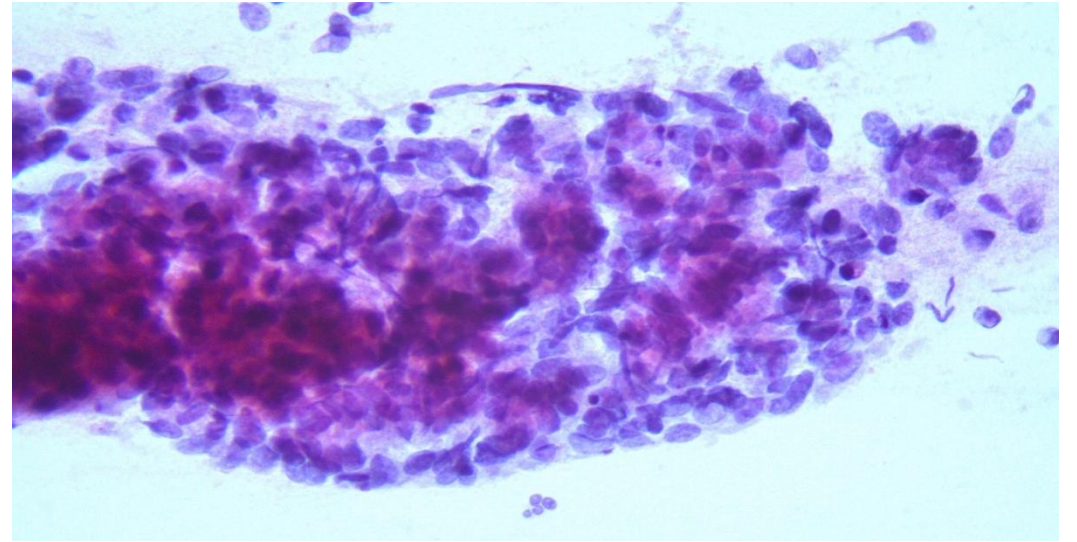
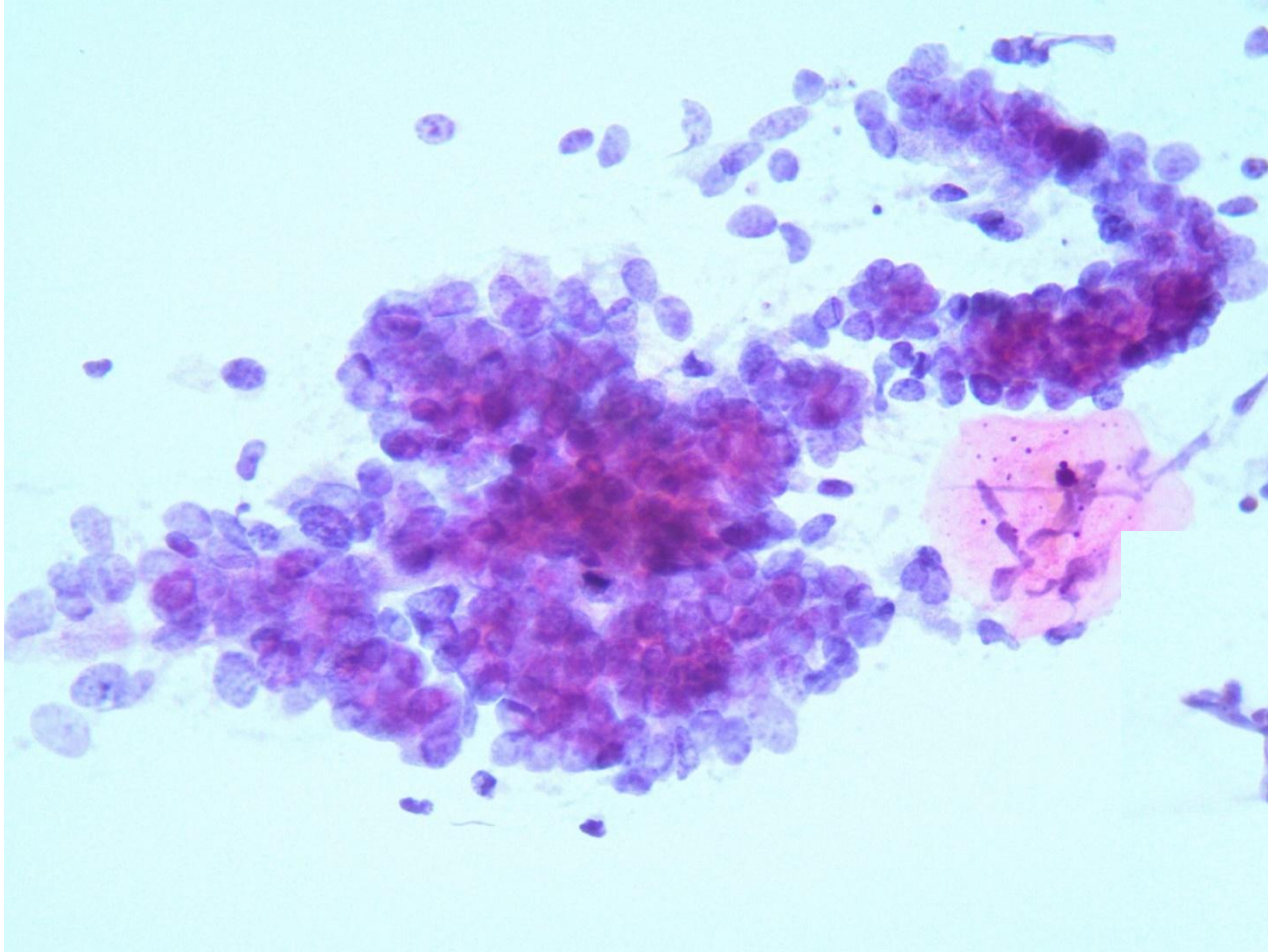
Early invasive adenocarcinoma, HPV-associated (p16+) of the uterine cervix. HSIL (severe dysplasia). Cone margins free of tumour.



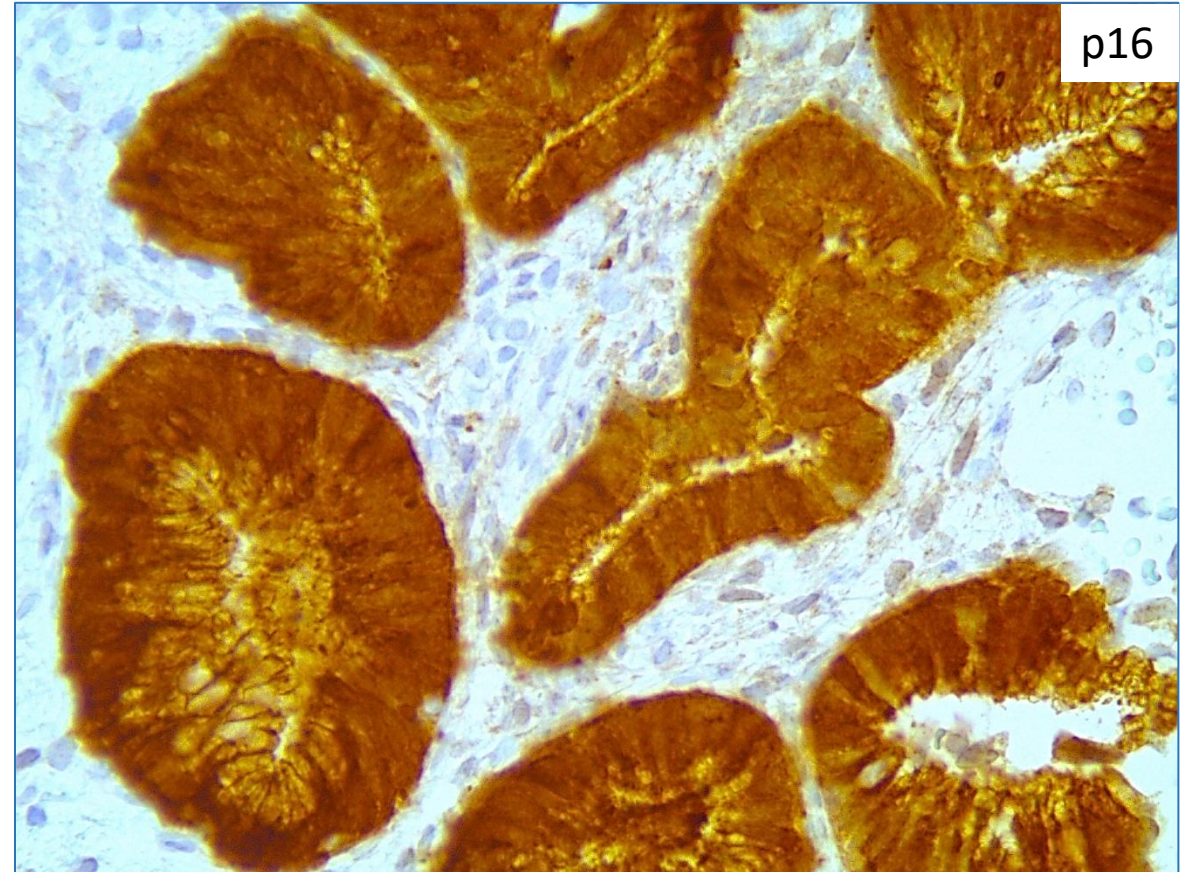
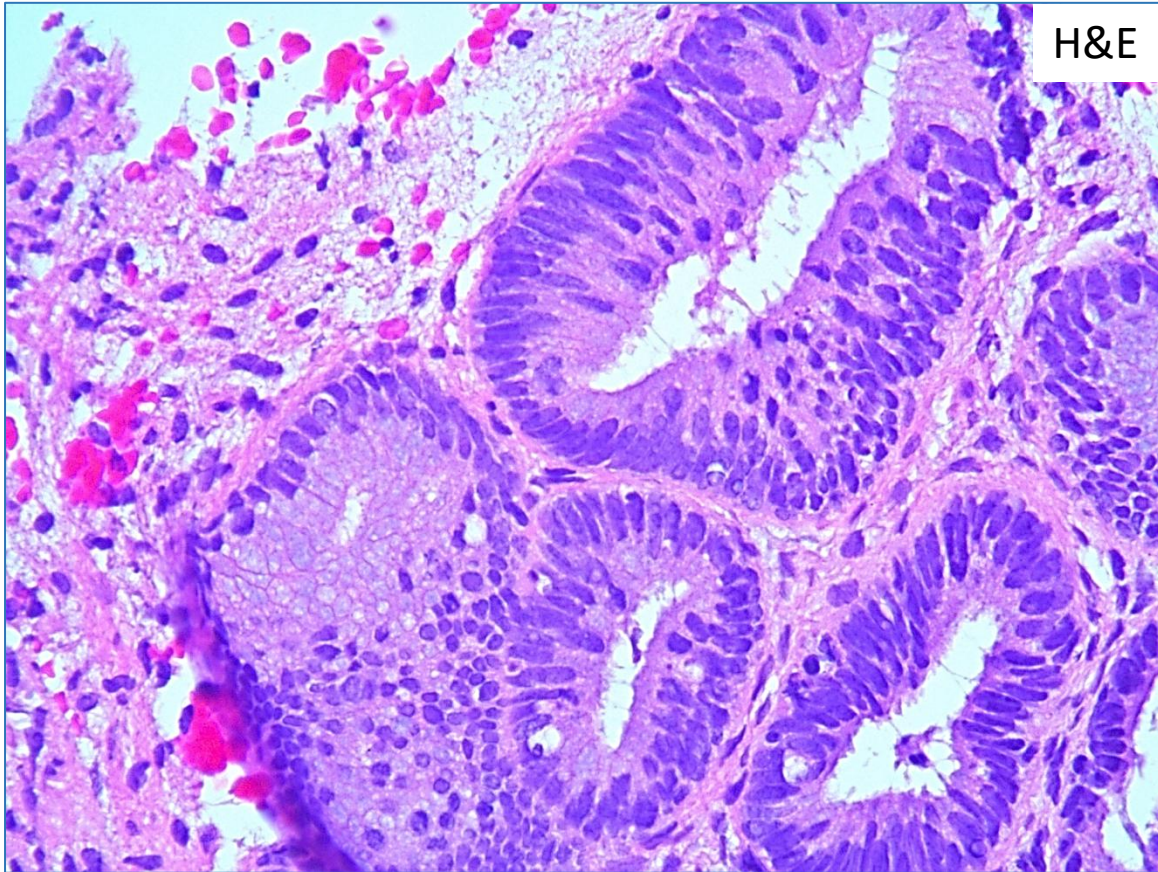
CASE 4

- 50 years old
- para?
- Routine check up, Perimenopausis (previous PAP test result NILM (one year before)).

PAP test result: AGC,
endometrial cells (AGC?,
*endocervical? AGC, favour
neoplastic?*)



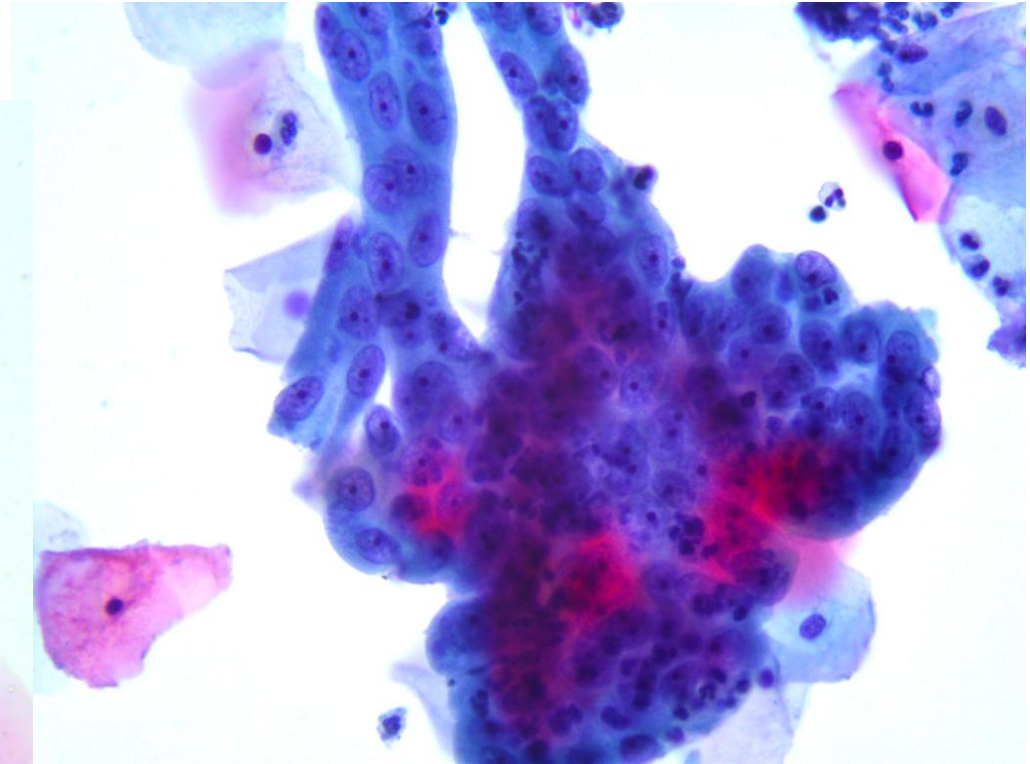
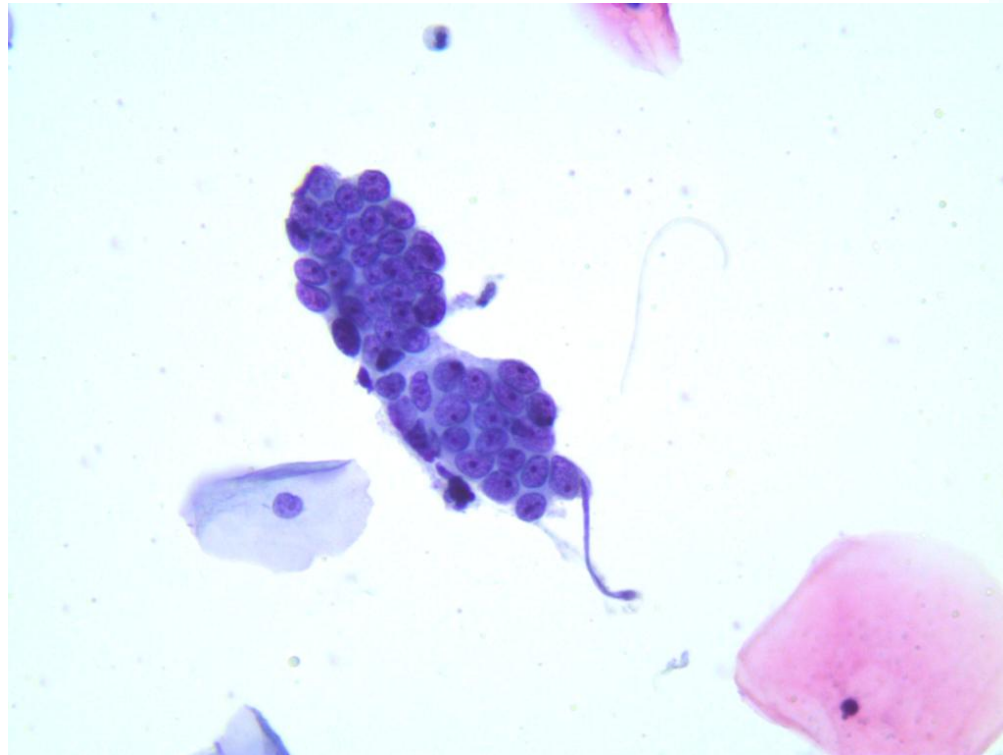
Early invasive adenocarcinoma, HPV-associated (p16+) of the uterine cervix. Atypical endometrial hyperplasia.



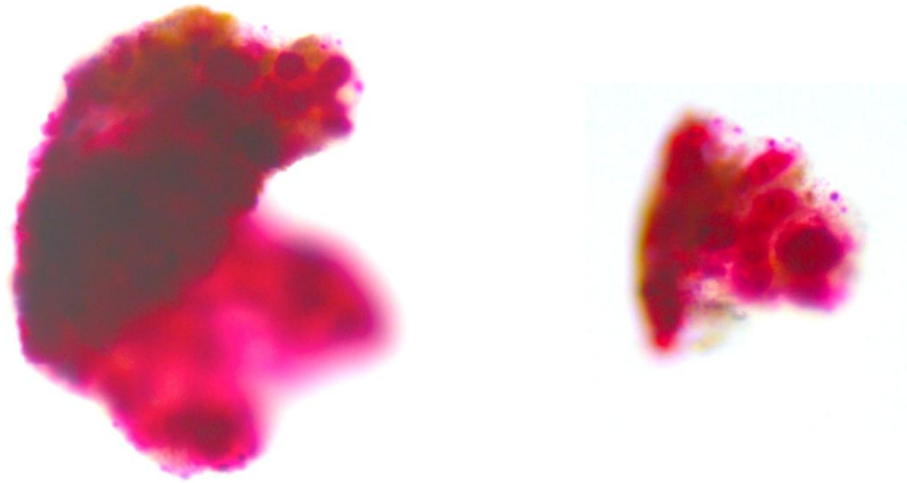
CASE 5

- 32 years old
- para2
- Routine check up (previous PAP test result CIN2 (one year before)).

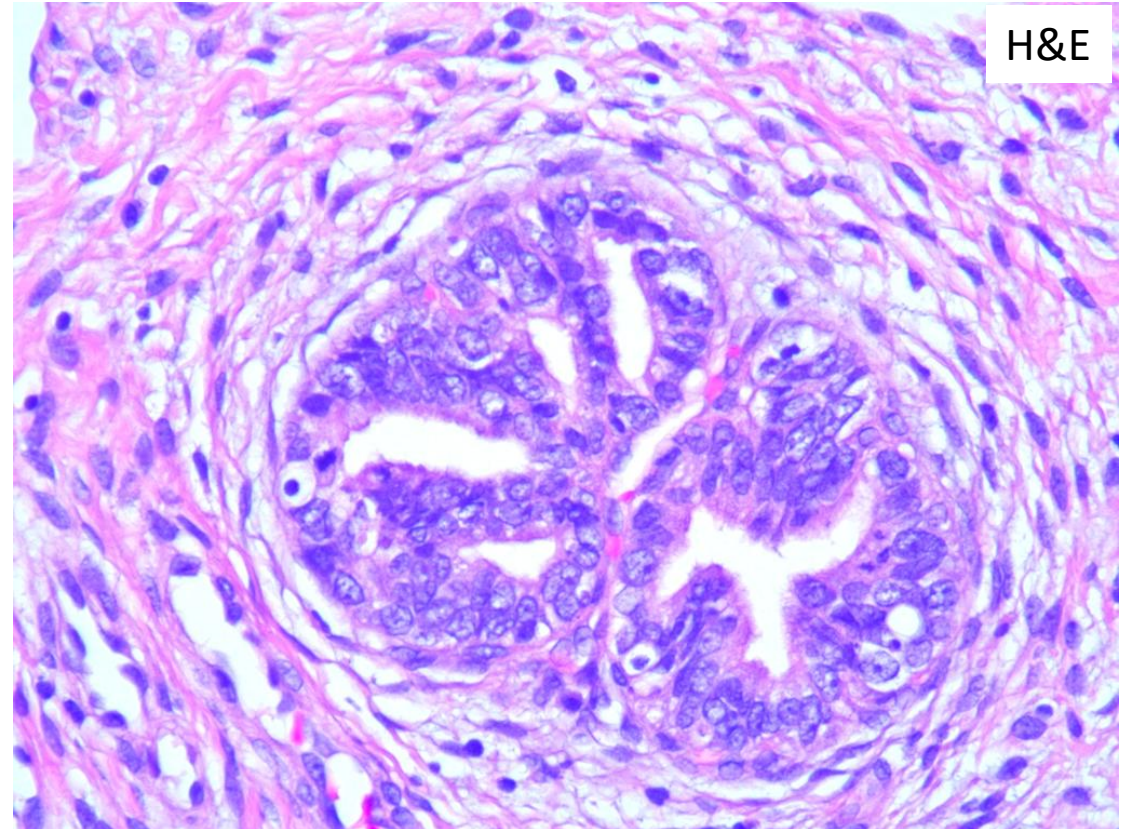
LBC PAP test result: AGC



Histopathology: Adenocarcinoma in situ of the uterine cervix, HPV-associated (HPV16)



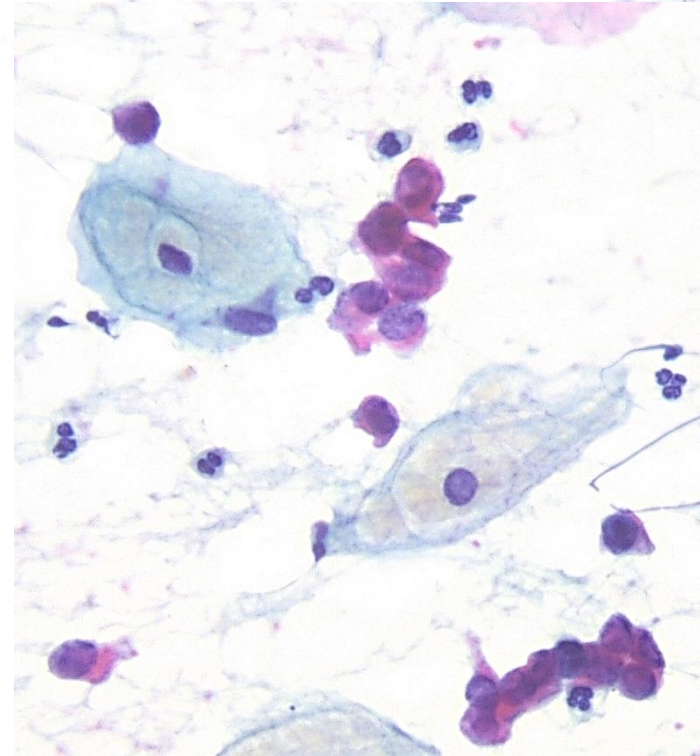
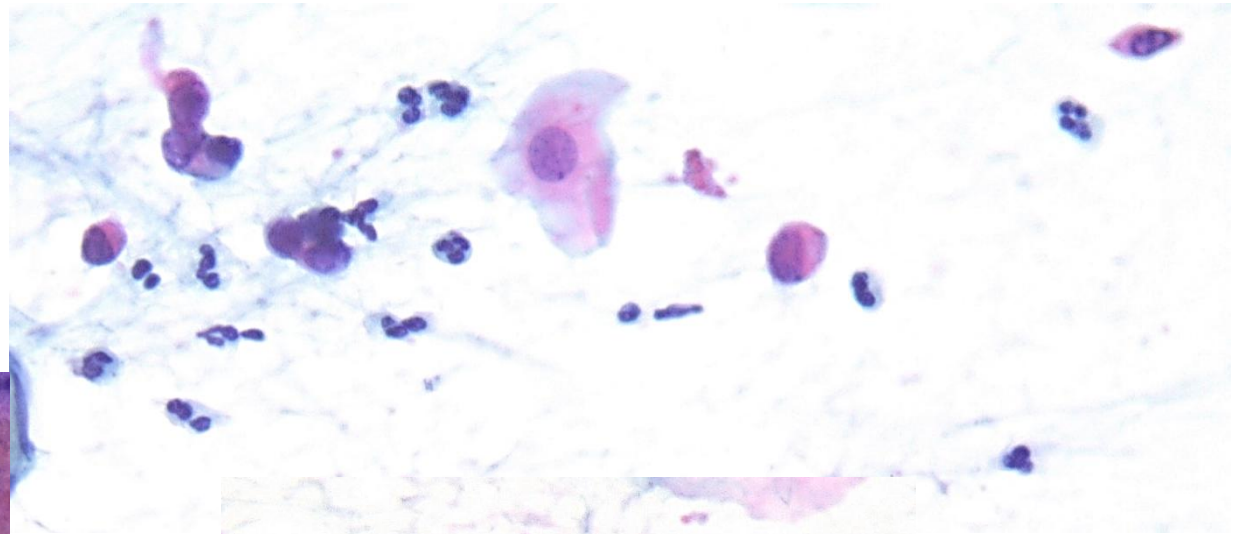
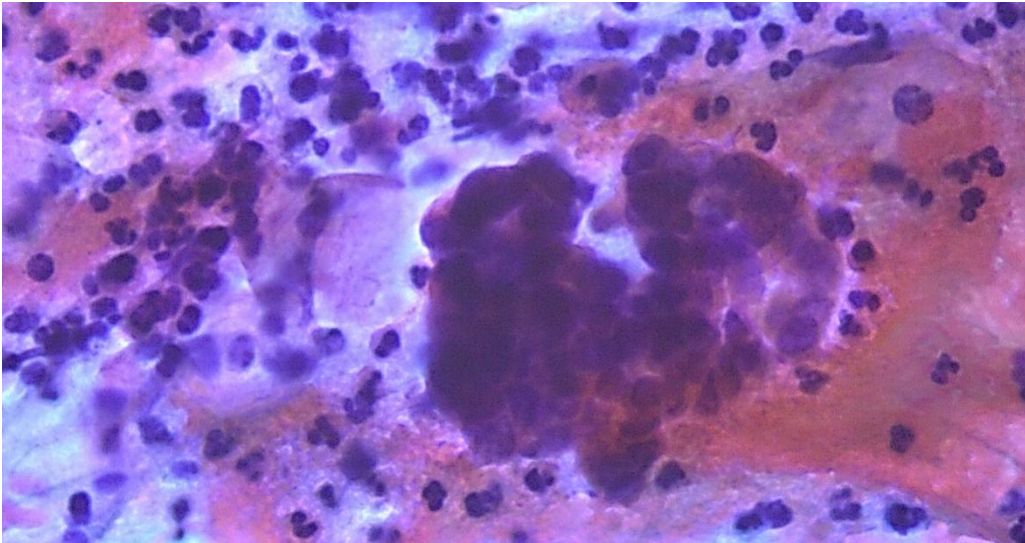
Dual immunocytochemistry p16/Ki-67



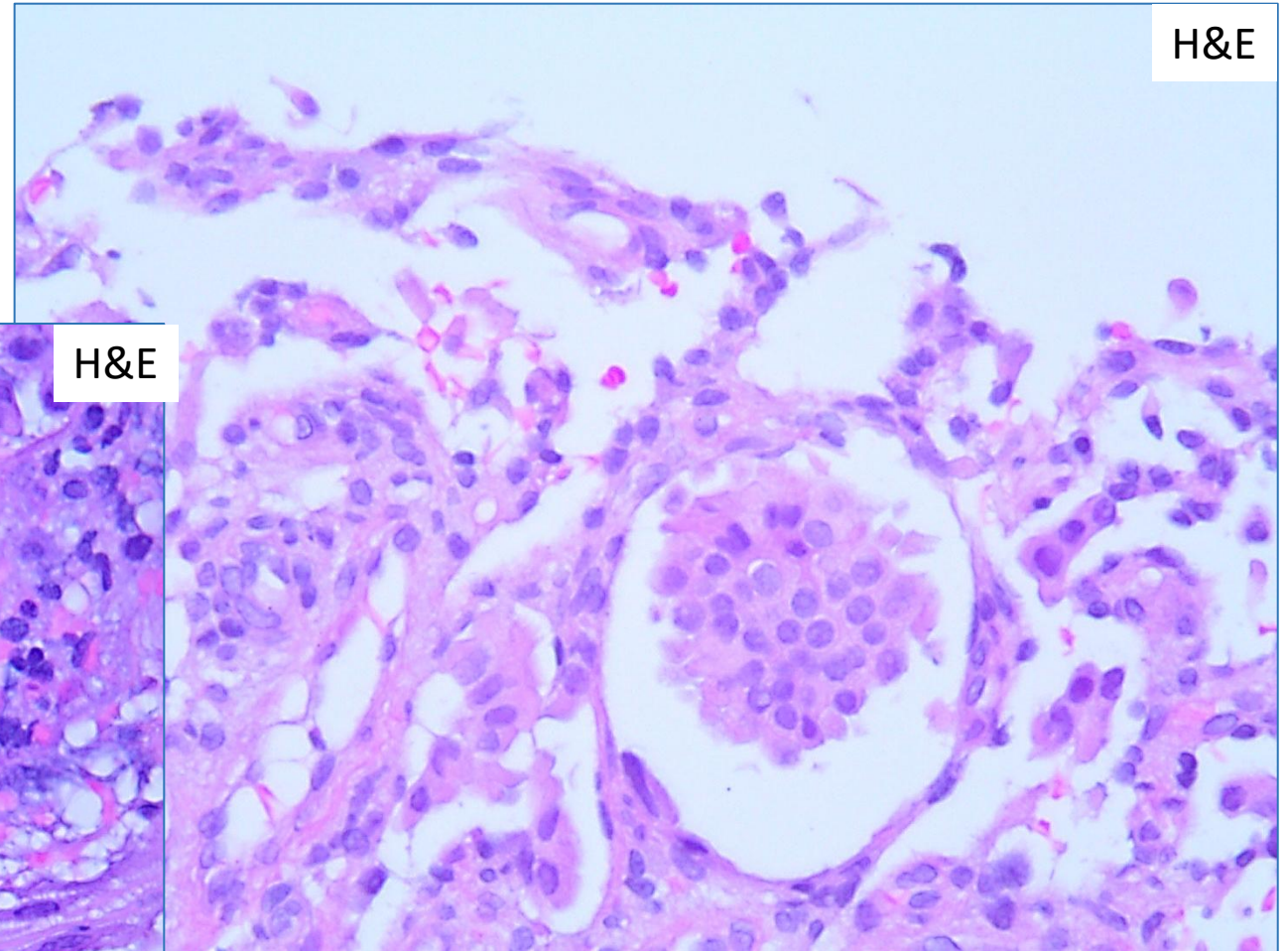
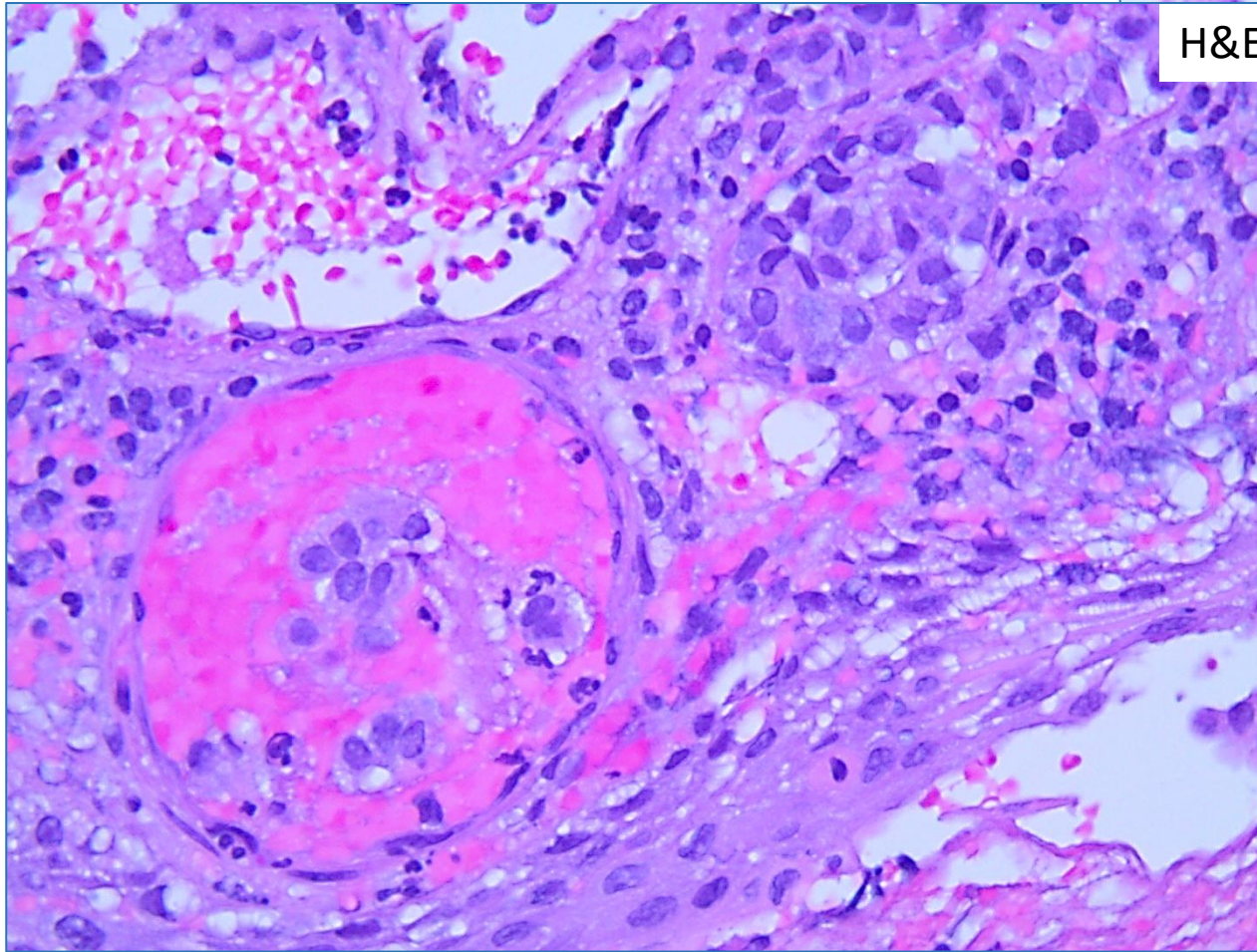
CASE 6

- 64 years old
- Menopausis. Ascites. Tu ovarii bill.

Conventional PAP test result:
AGC, favour neoplastic (AGC,
endometrial cells?)

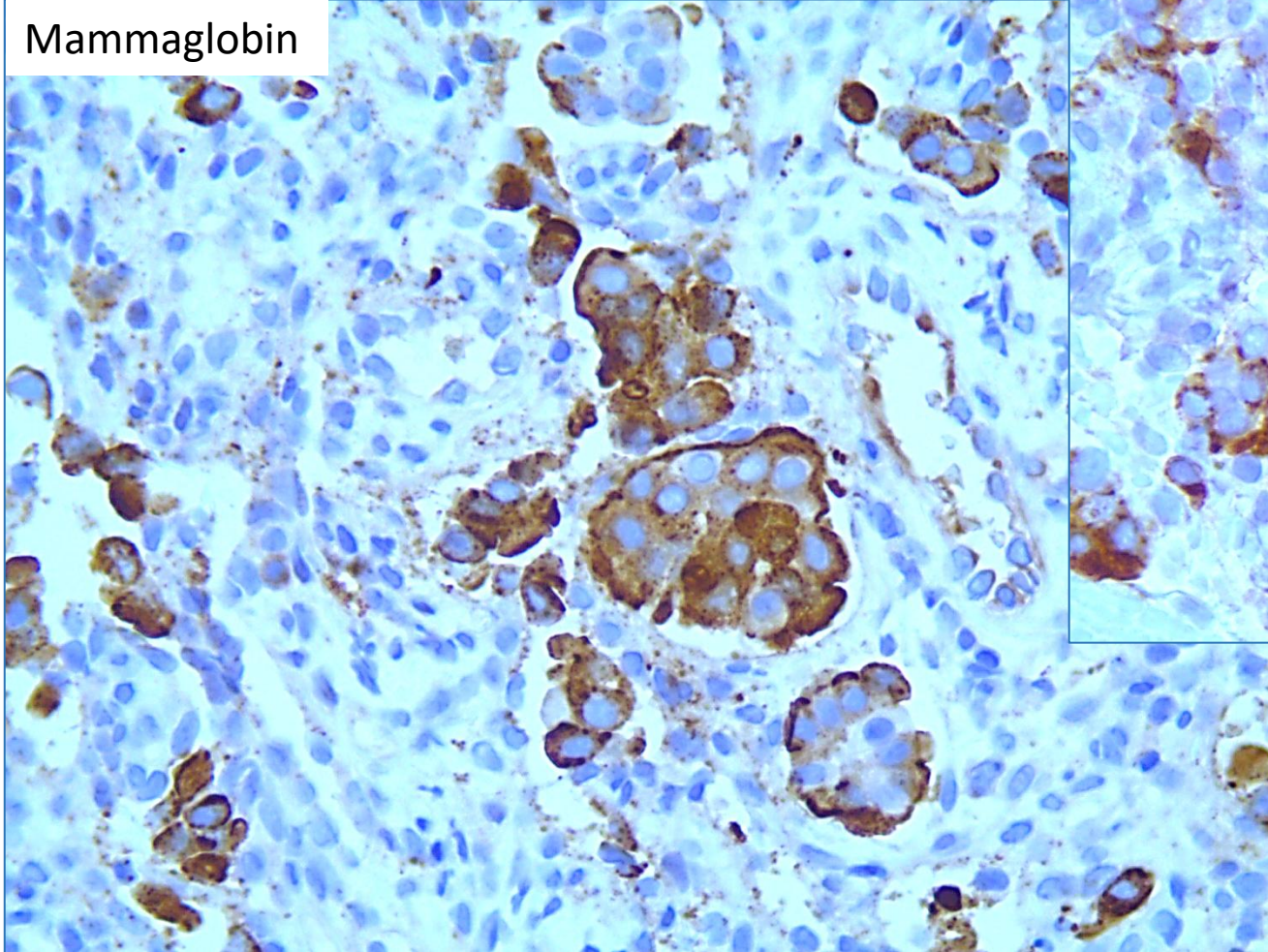


Metastatic carcinoma? to the
uterine cervix (Mastectomy a.a.
XX!)



Metastatic *breast* carcinoma
to the uterine cervix.

Mammaglobin



GCDFP

