High Grade Squamous Intraepithelial Lesion (HSIL), Atypical Squamous Cells, Cannot Exclude HSIL (ASC-H), and Squamous Cell Carcinoma

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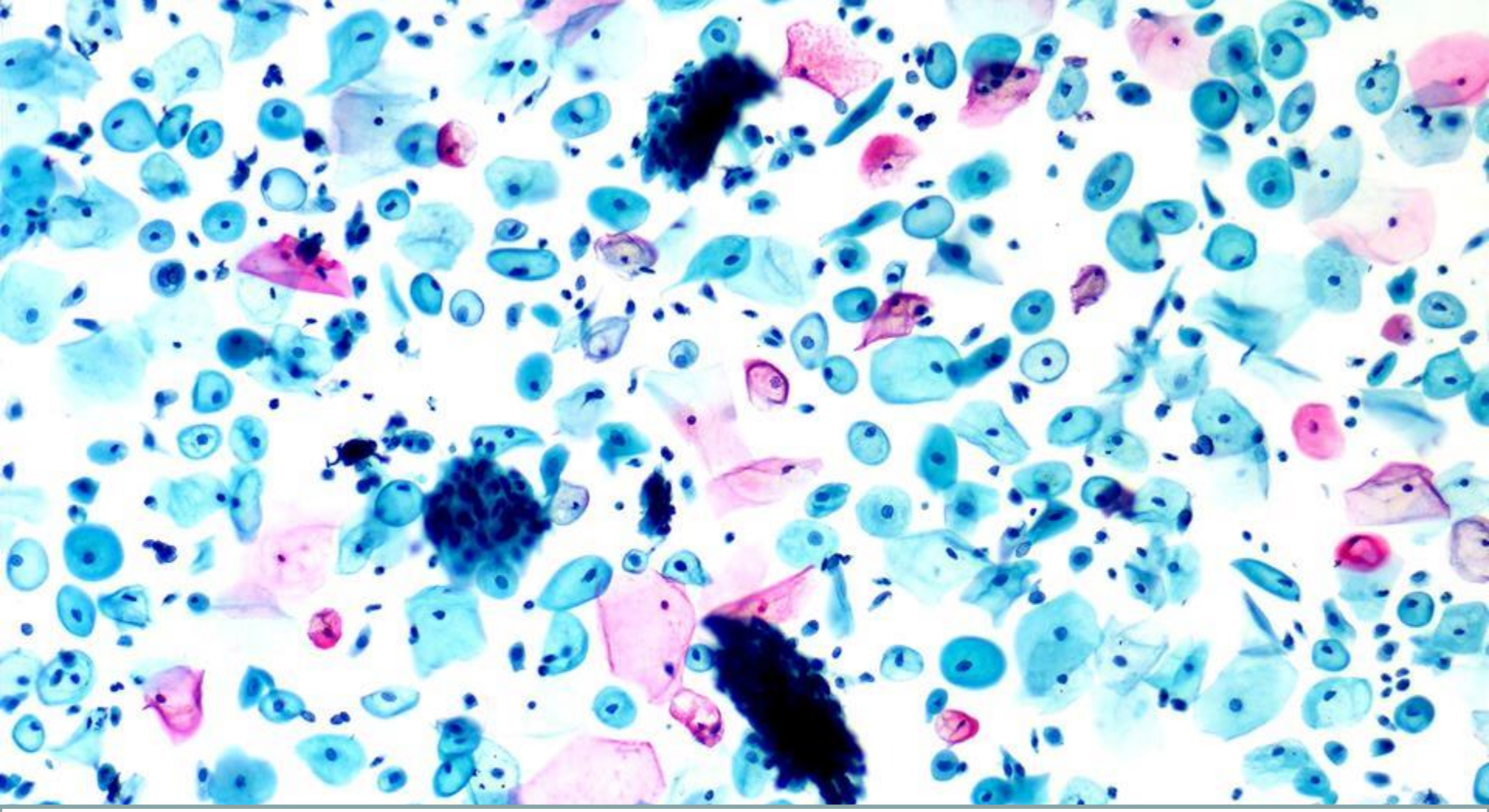
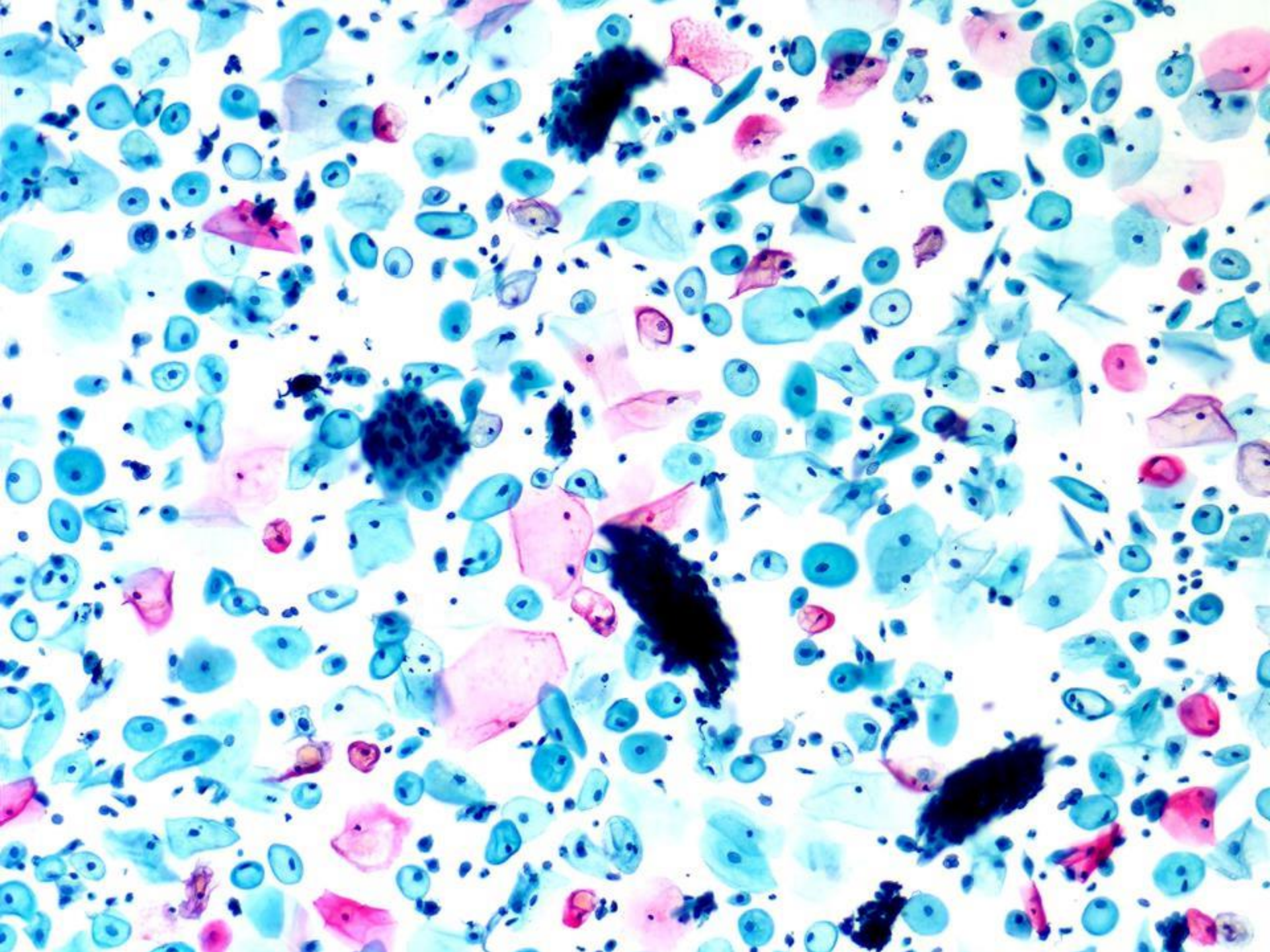
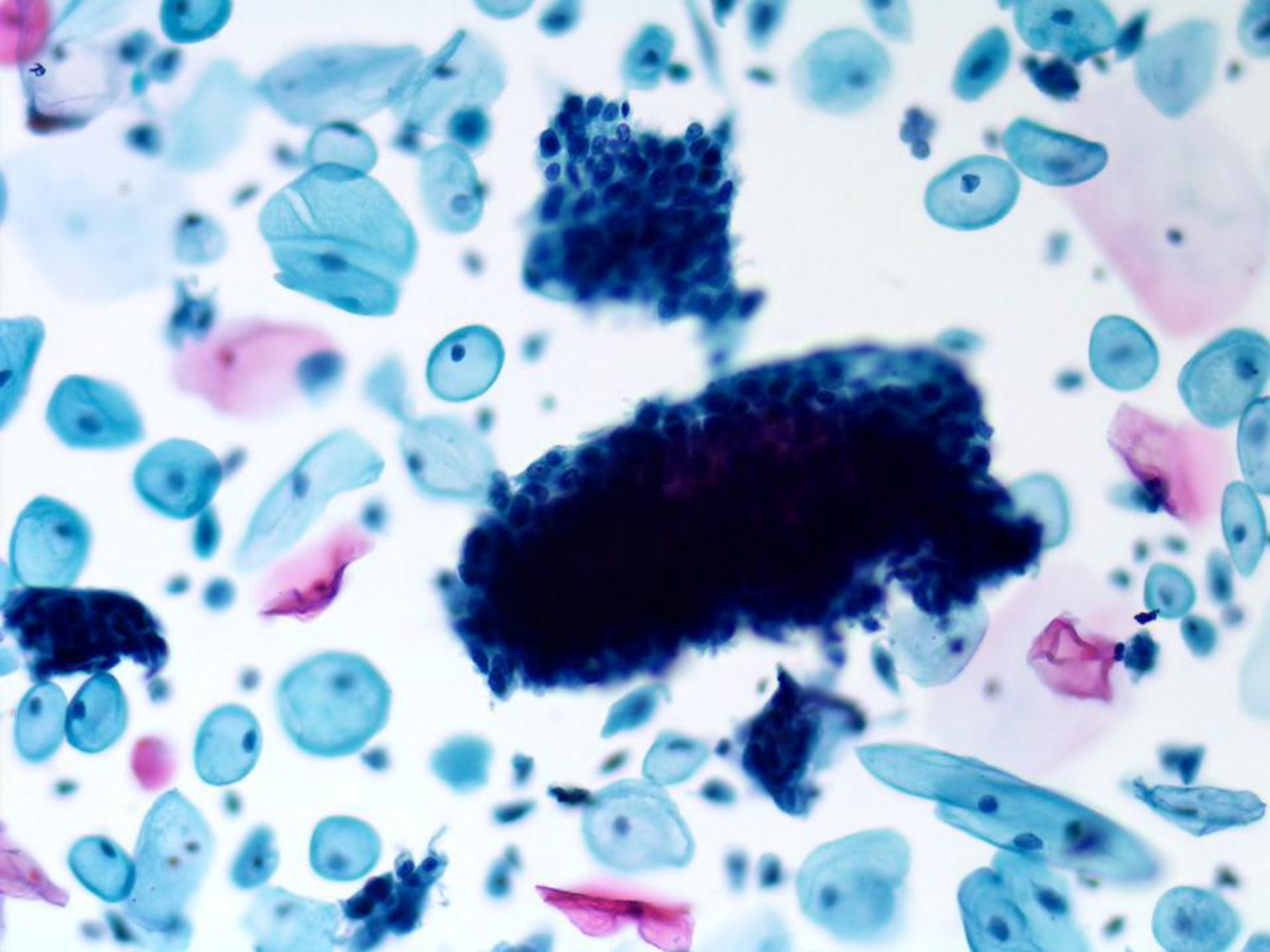
SADLY, THE MOST IMPORTANT DIAGNOSIS IS OFTEN THE MOST DIFFICULT DIAGNOSIS



HYPERCHROMATIC CROWDED GROUPS (HCG)





HYPERCHROMATIC CROWDED GROUPS

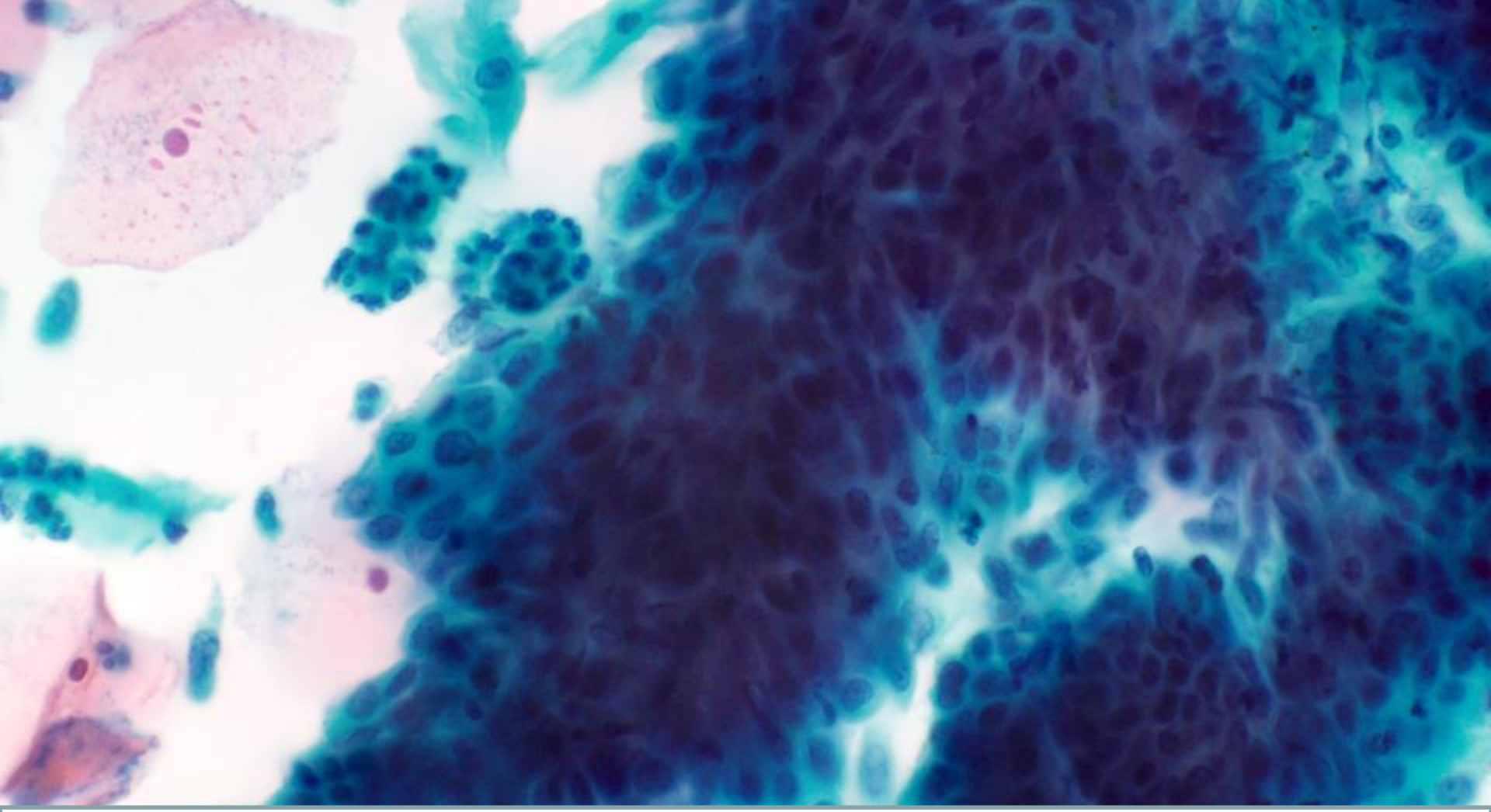
- Differential Diagnosis:
  - Squamous metaplasia
  - Atrophy
  - Benign endocervical
  - Exfoliated endometrial
  - Directly sampled endometrium
  - Tubal metaplasia
  - IUD cells
  - AIS
  - Follicular cervicitis

HSIL Morph Criteria

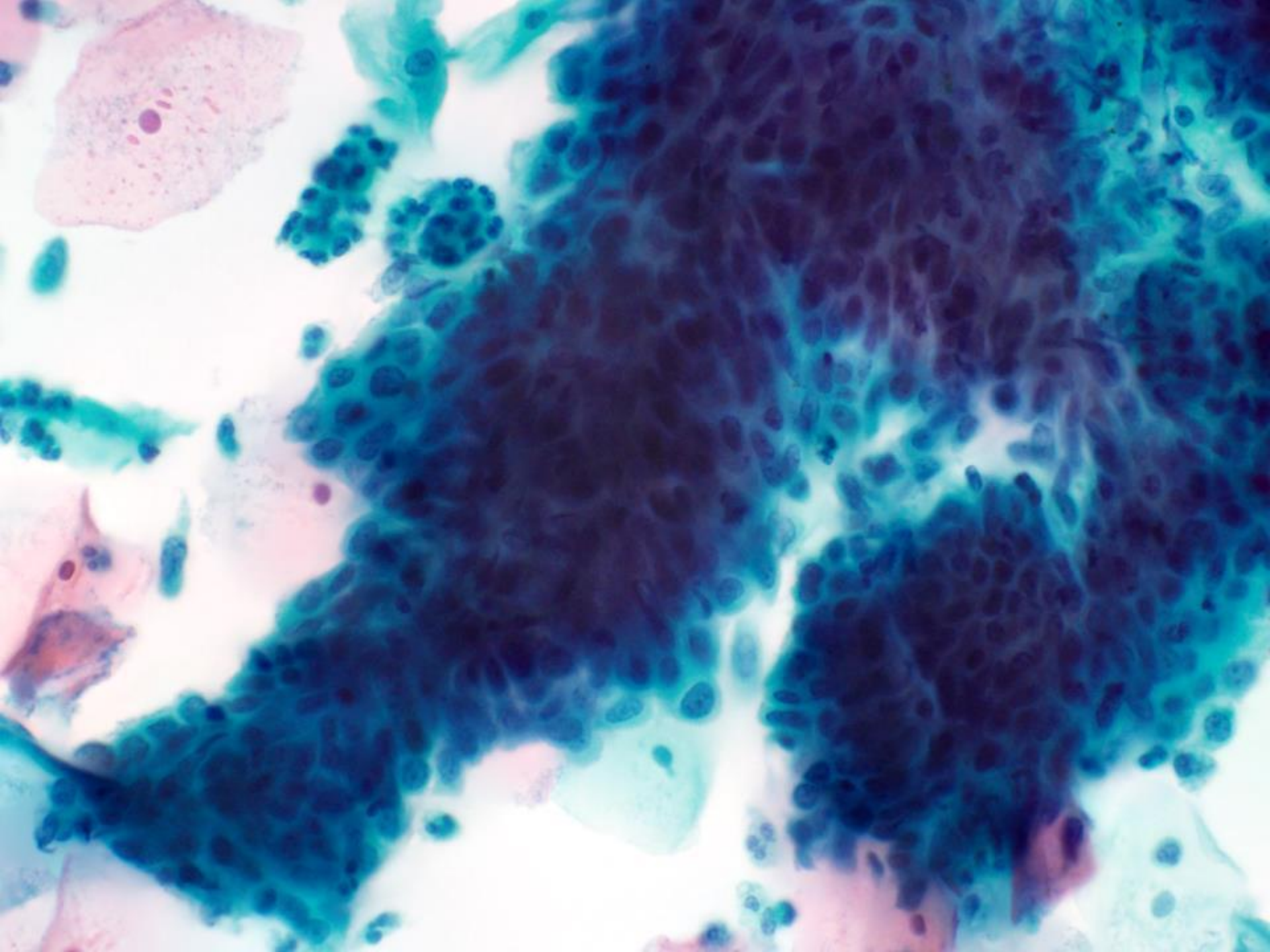
- Generally smaller cells with high N/C ratio than LSIL
- Irregular nuclear contours with indentations/grooves
- Variable: nuclear size, chromasia, cytoplasm quality, chromatin (coarse or fine), cell size
- Some cytopathologists require atypical cells in fragments/sheets as well as present singly to make the diagnosis

HSIL Morph Criteria

- My own observations:
  - Anisonucleosis that includes very small nuclei
  - Nuclear pleomorphism
  - Three dimensional fragments



HIGH GRADE SQUAMOUS INTRAEPITHELIAL LESION (HSIL)



HIGH GRADE SQUAMOUS INTRAEPITHELIAL LESION (HSIL)

Differences compared to conventional smear:

- Generally, smaller cell size
- More frequently single cells or smaller fragments
- Fewer number of abnormal cells
- Syncytial aggregates mimic glandular lesions
- Morphologic overlap with glandular lesions
- Accentuated irregular nuclear contours
- Fine-to-coarse nuclear chromatin vs. increased hyperchromasia
- More distinctive cytoplasmic borders

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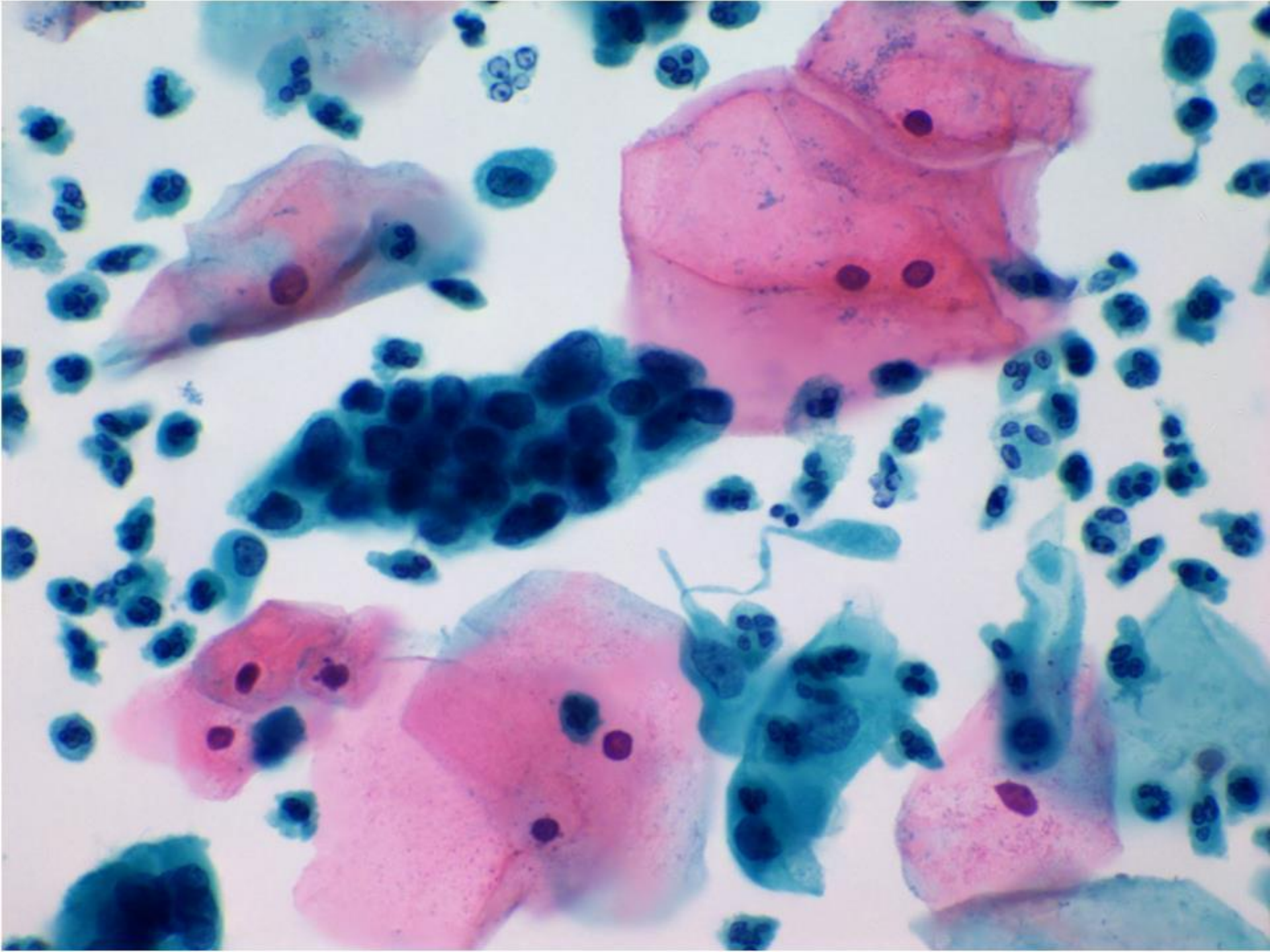
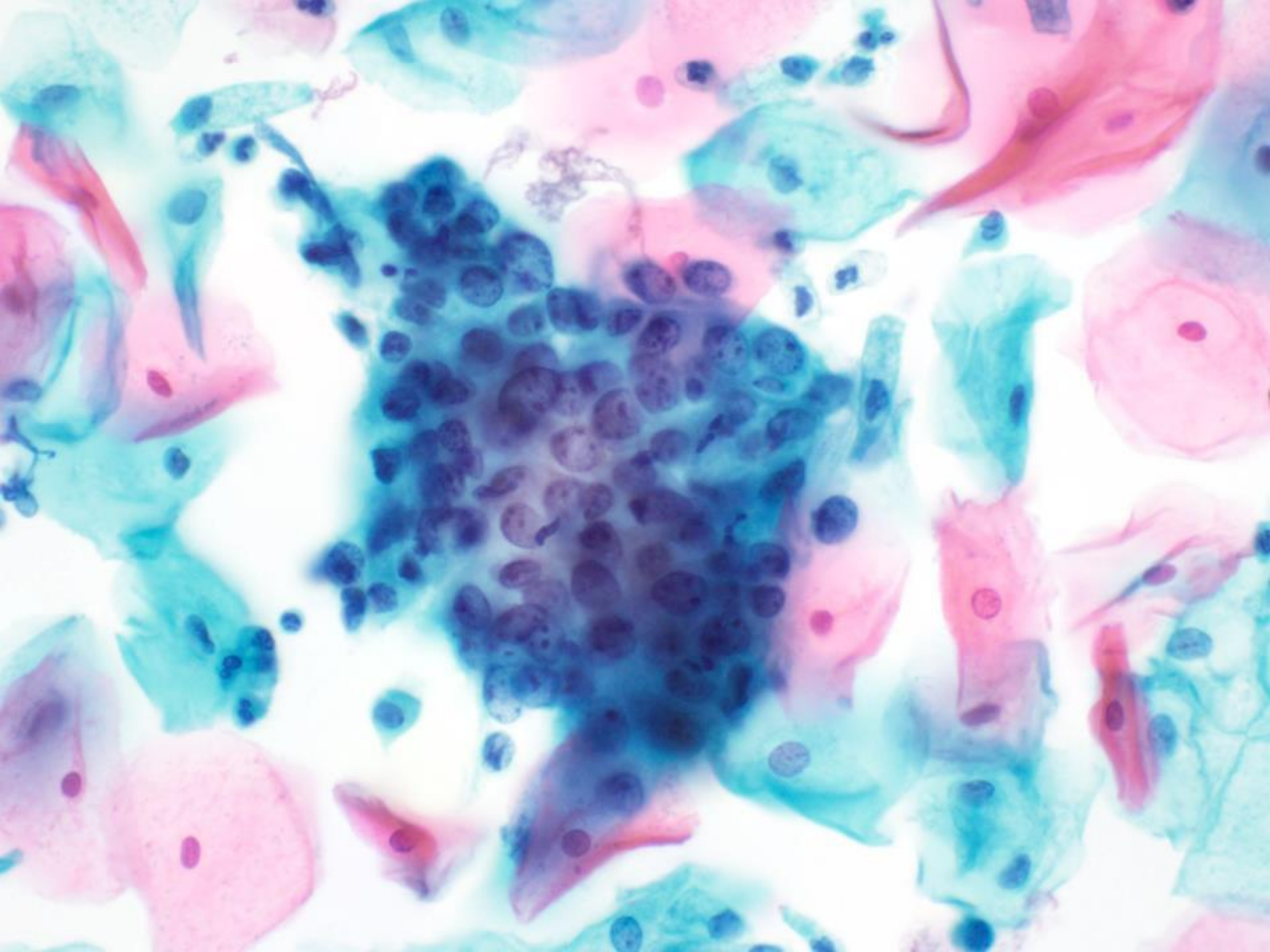
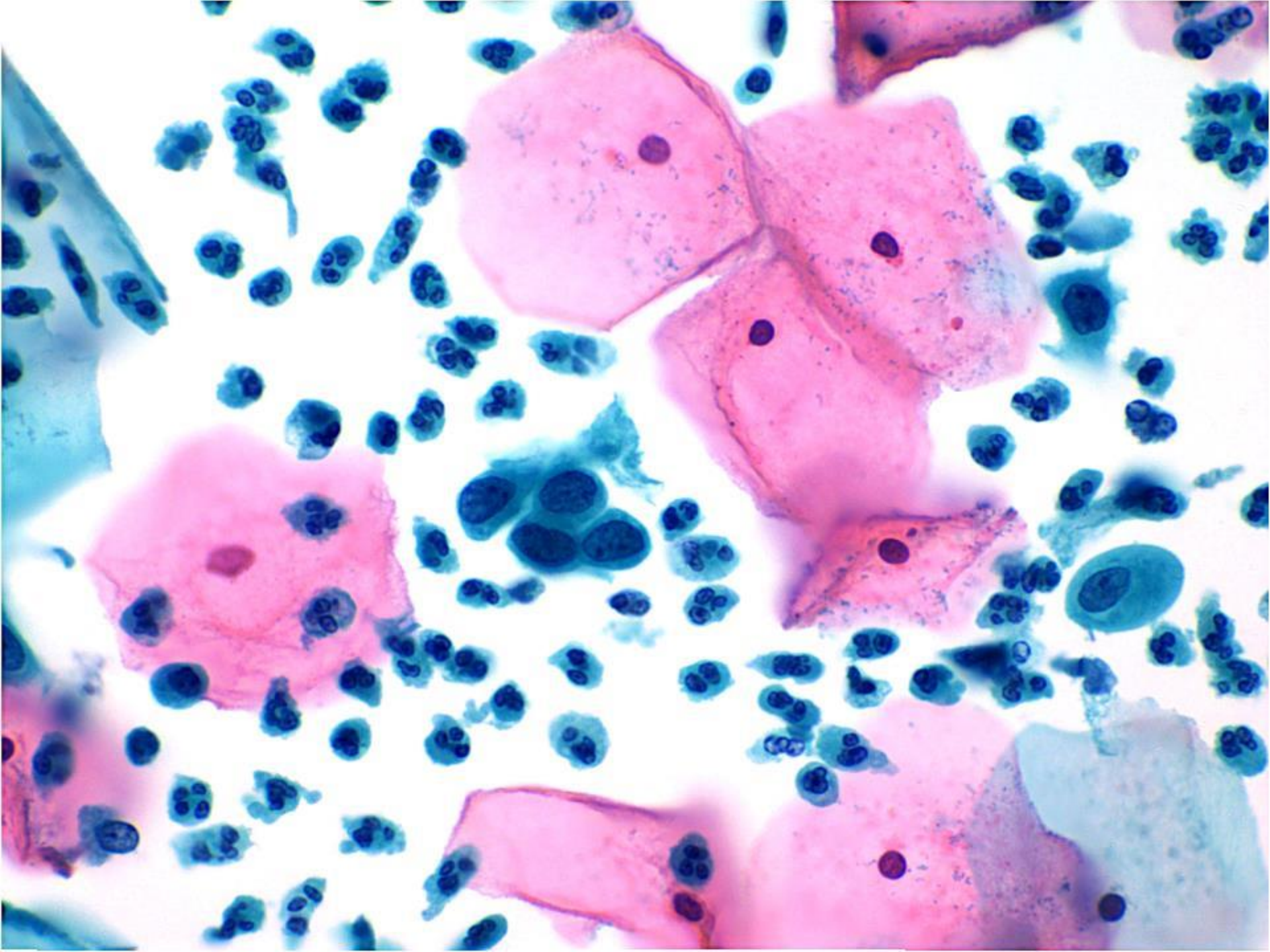
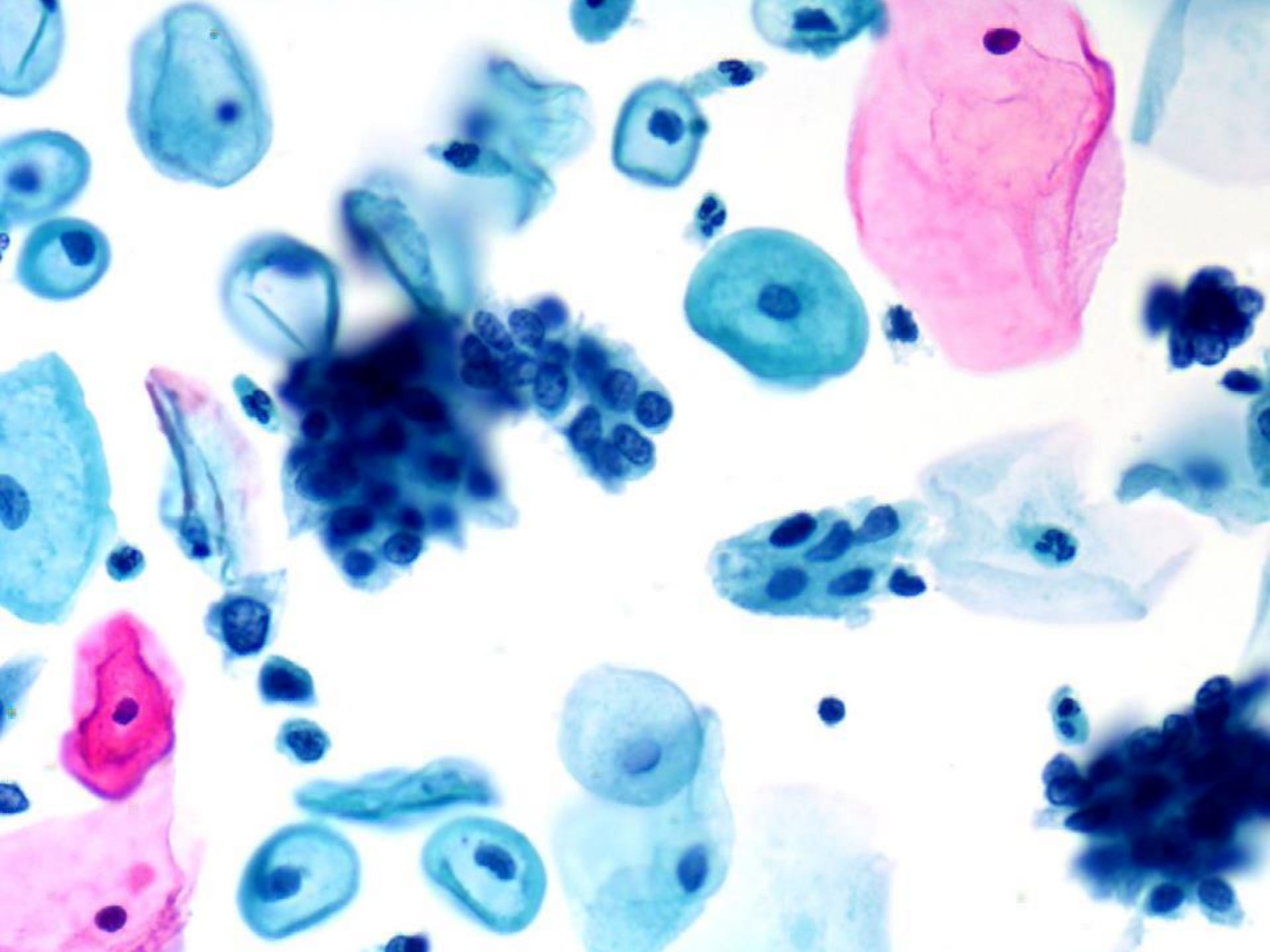
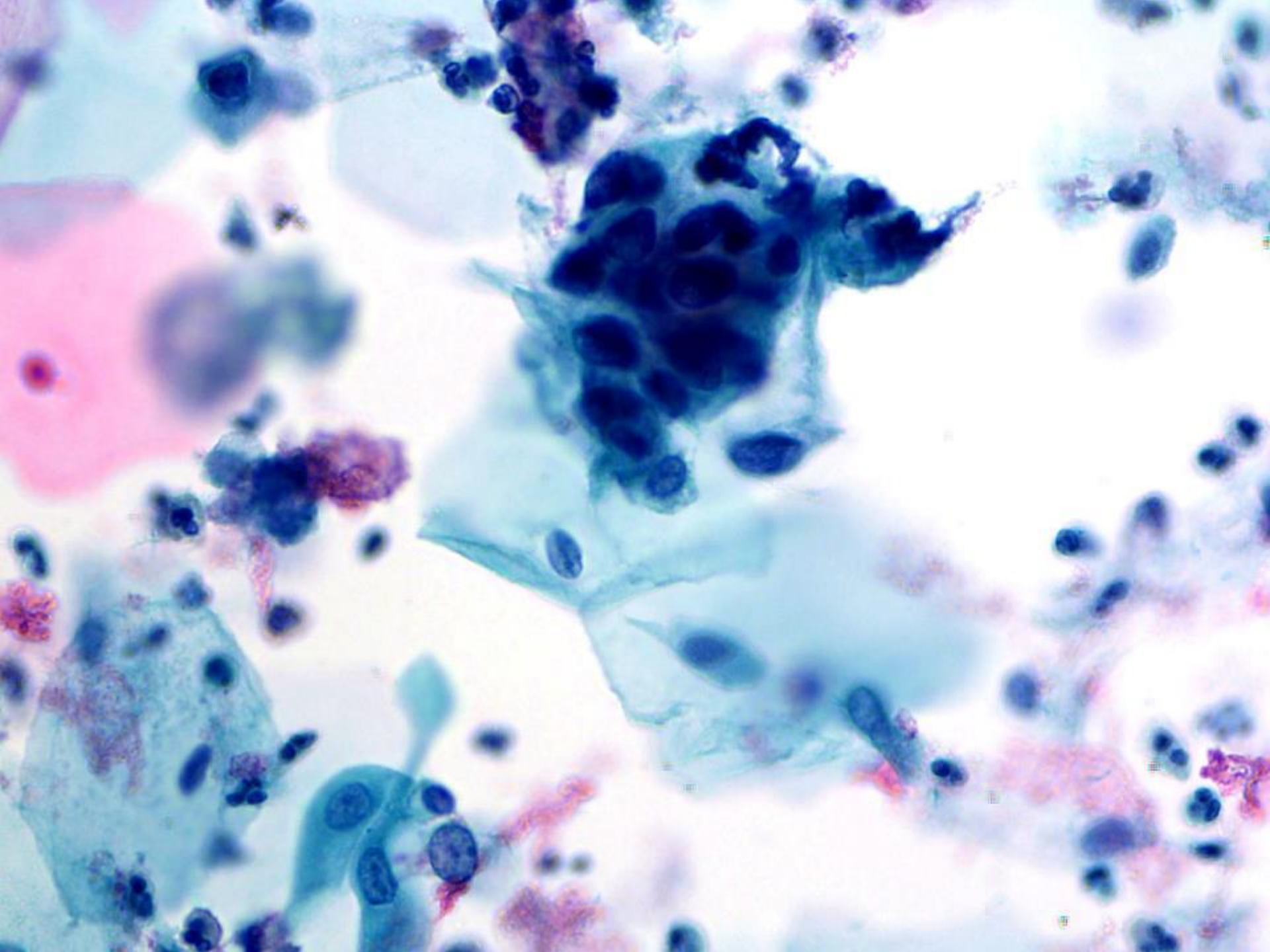
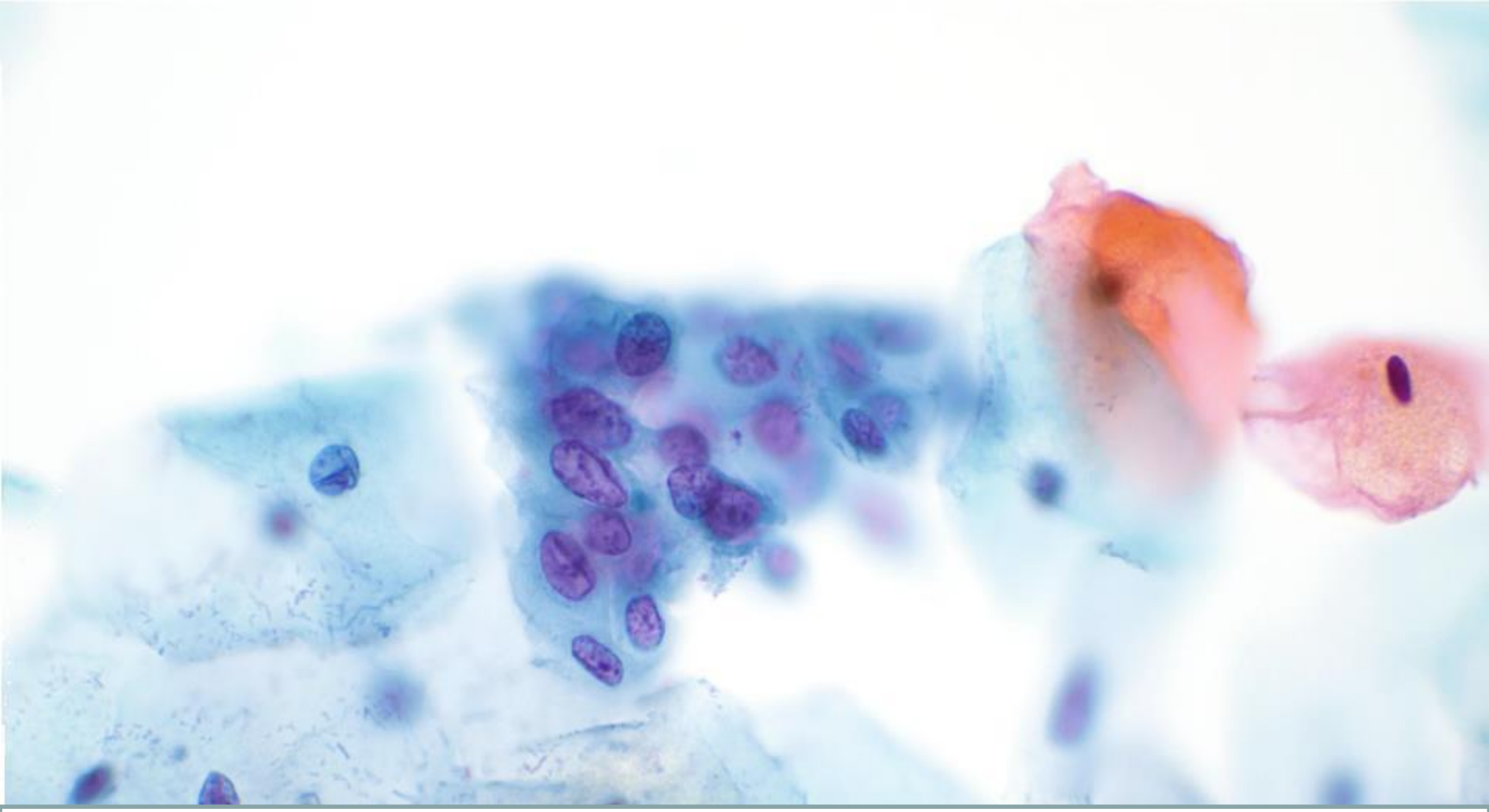




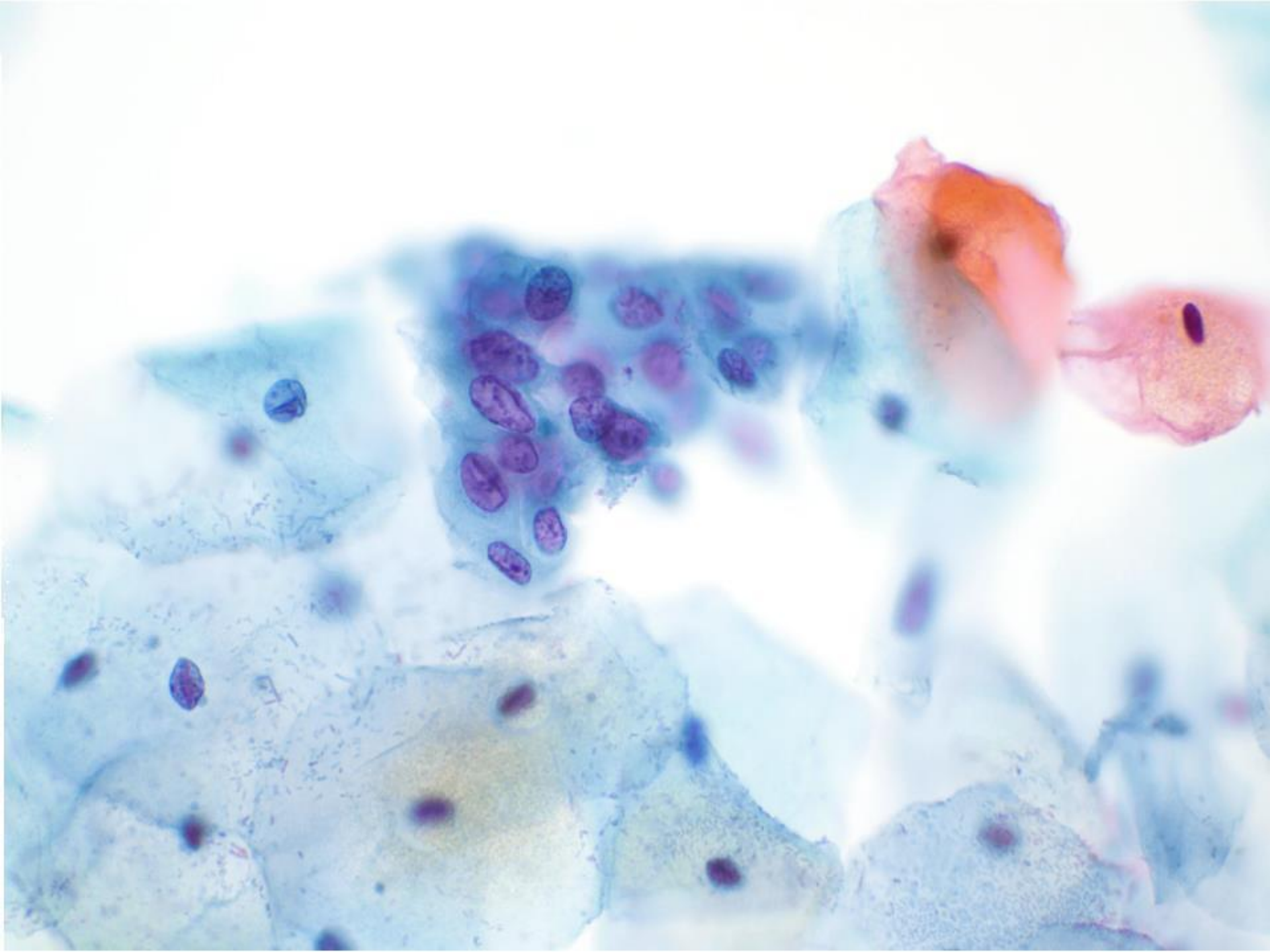


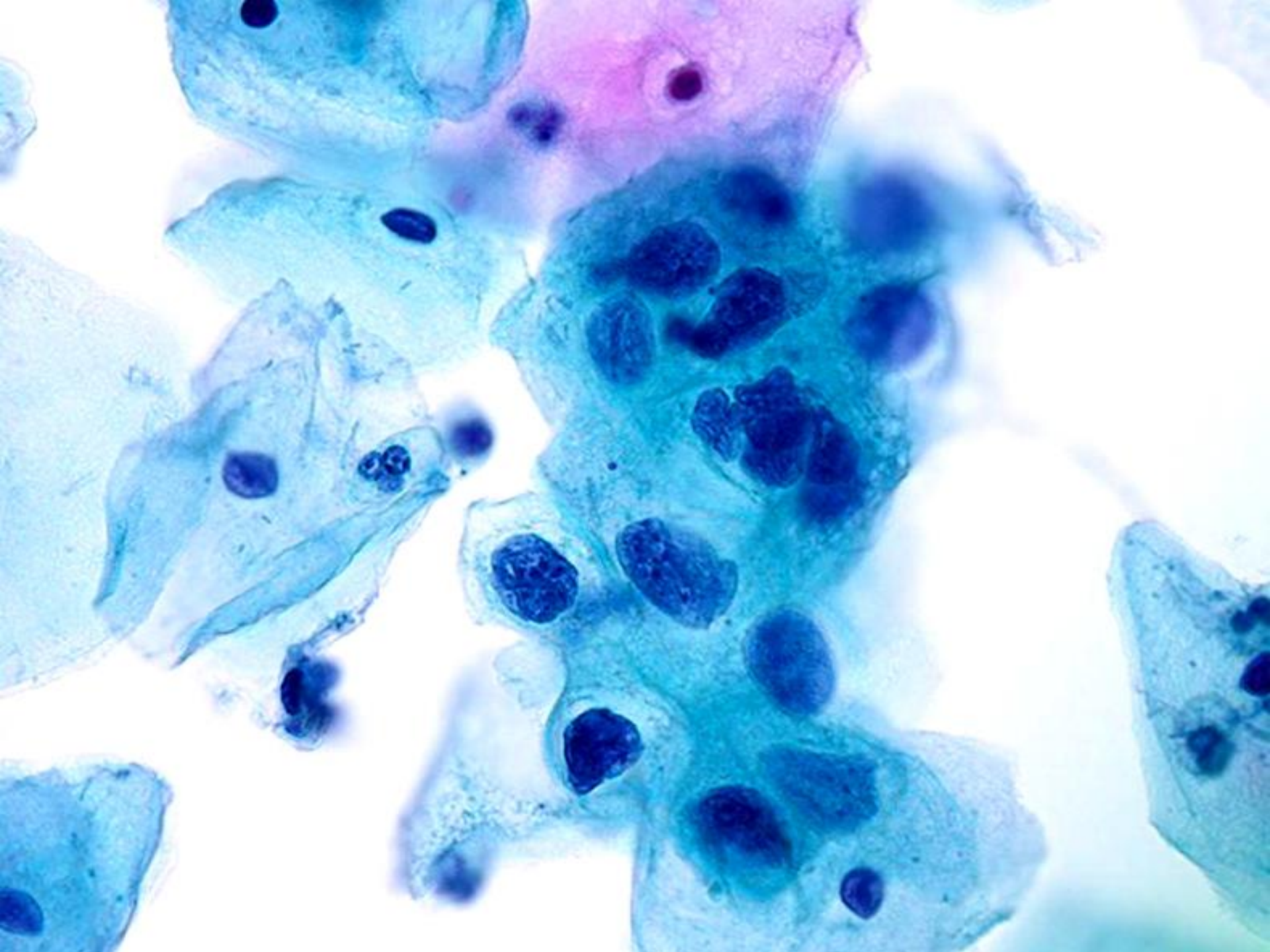


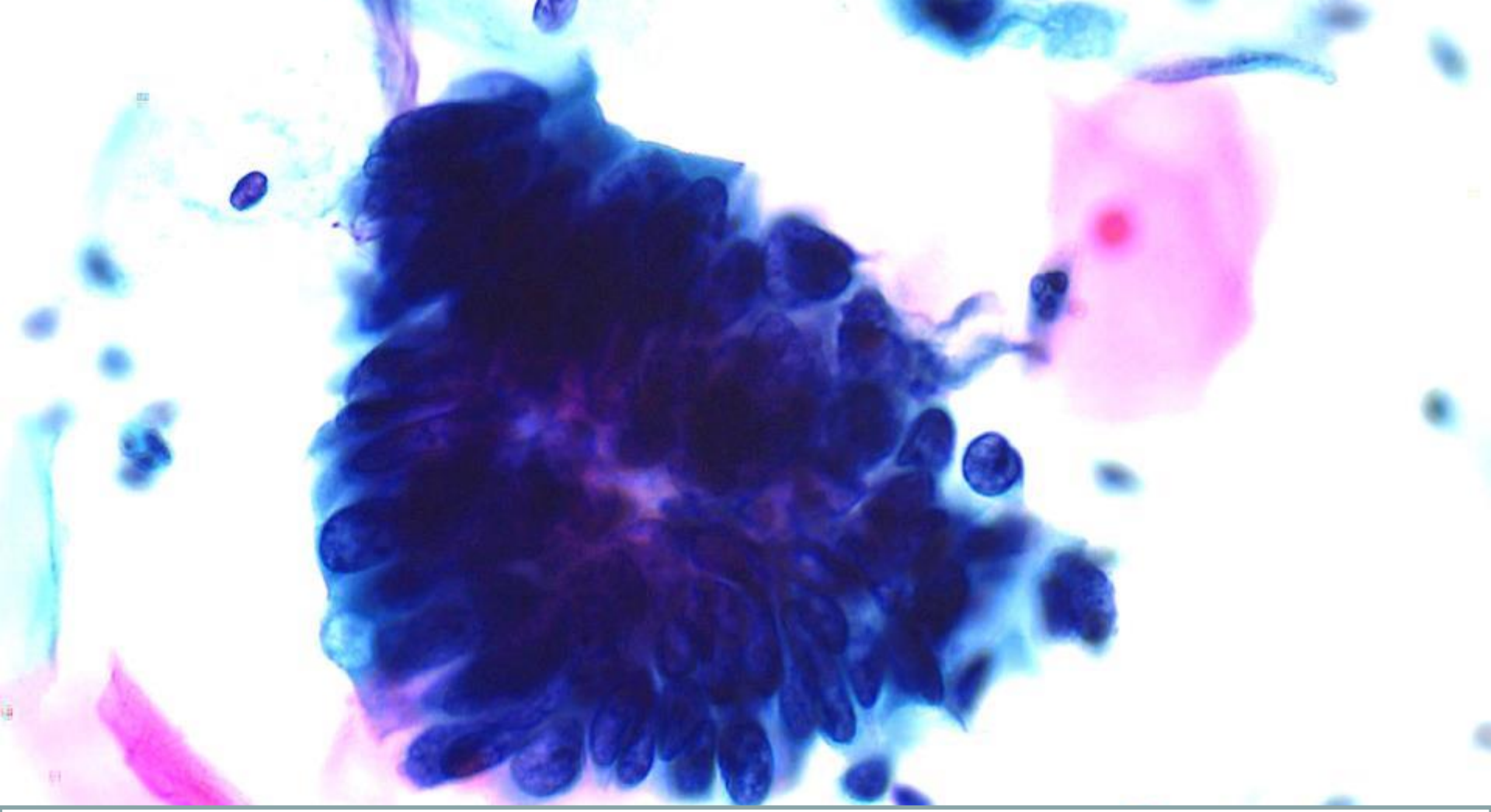




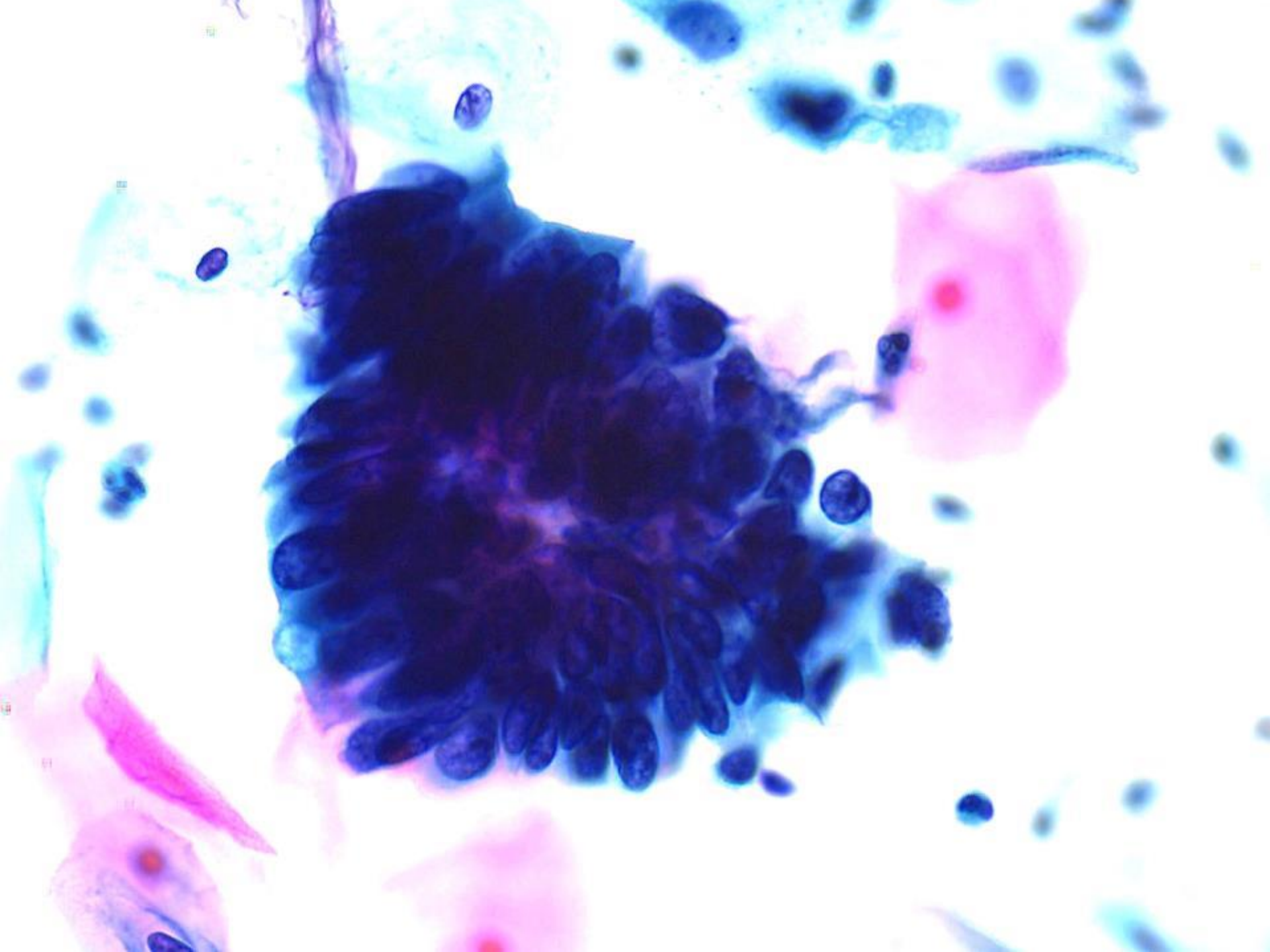
HSIL WITH LOW N/C RATIOS

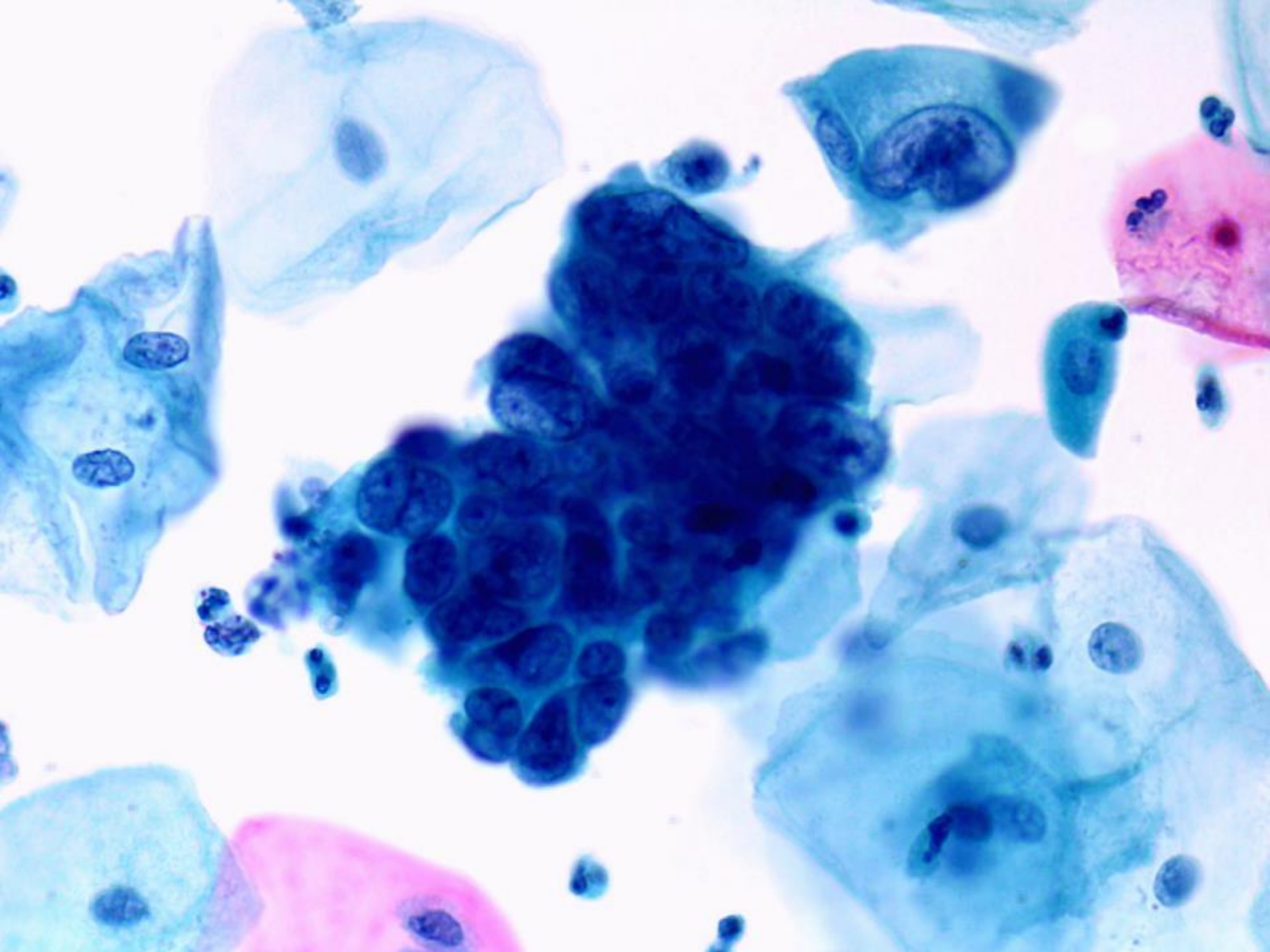


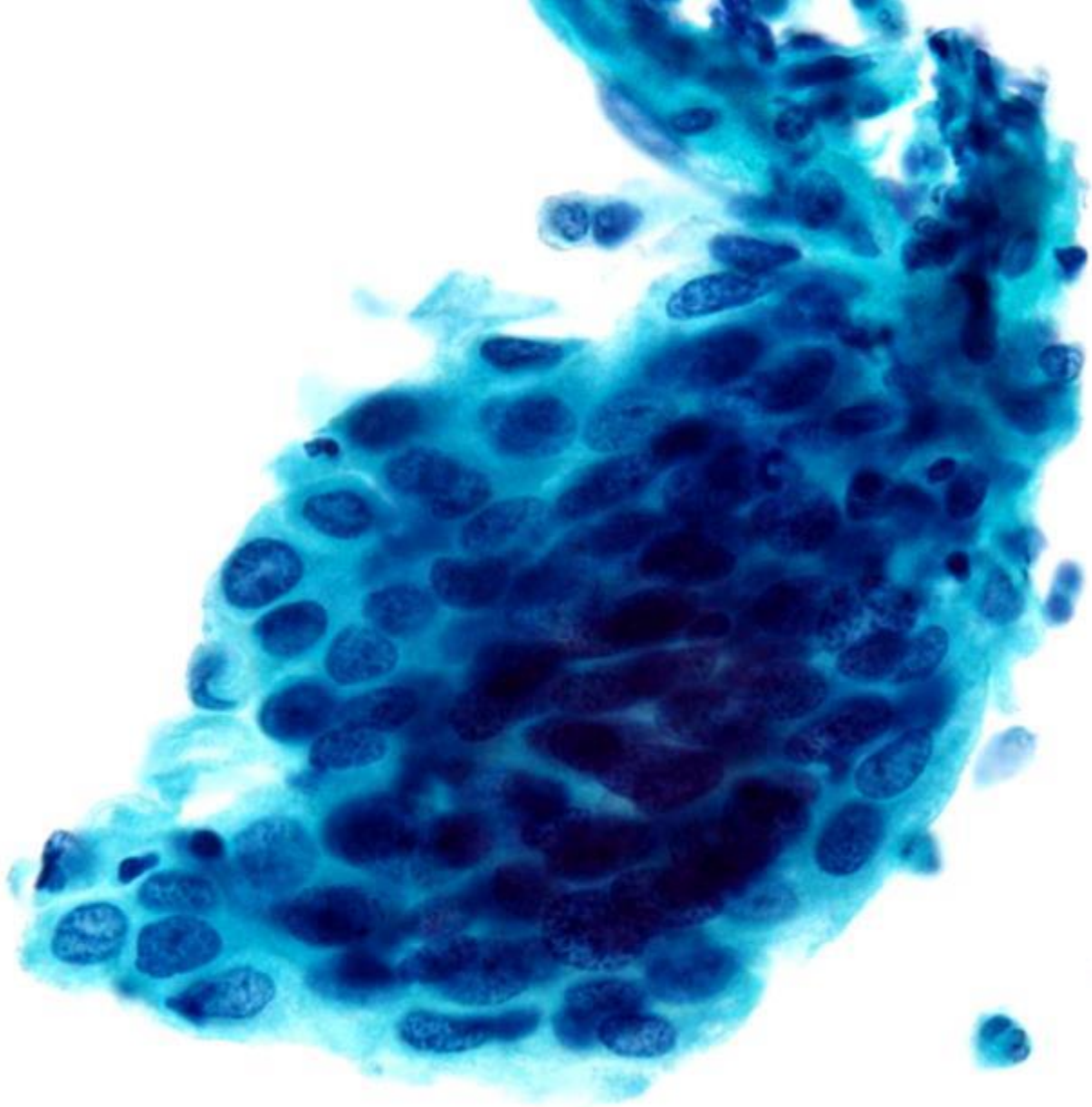


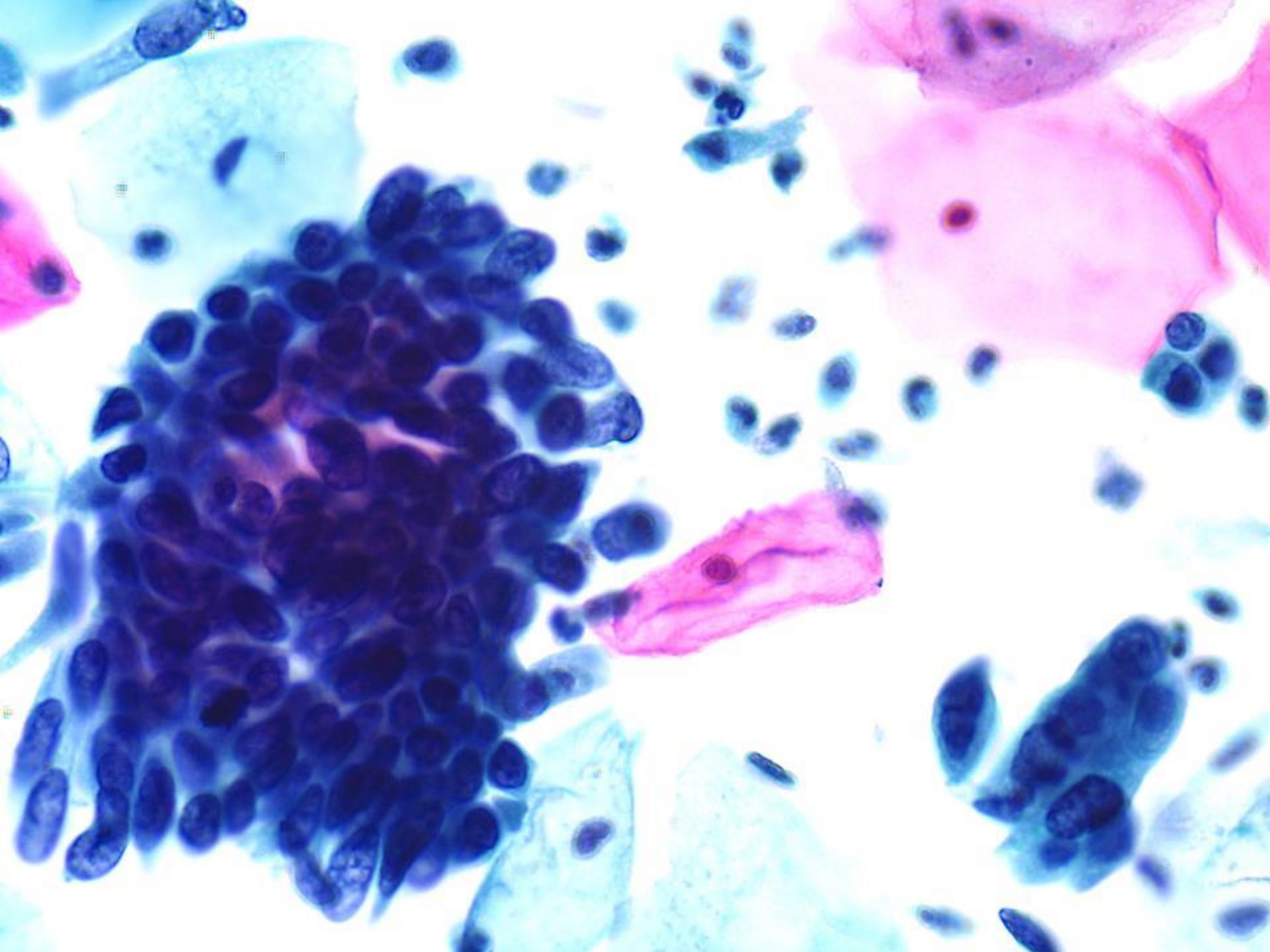


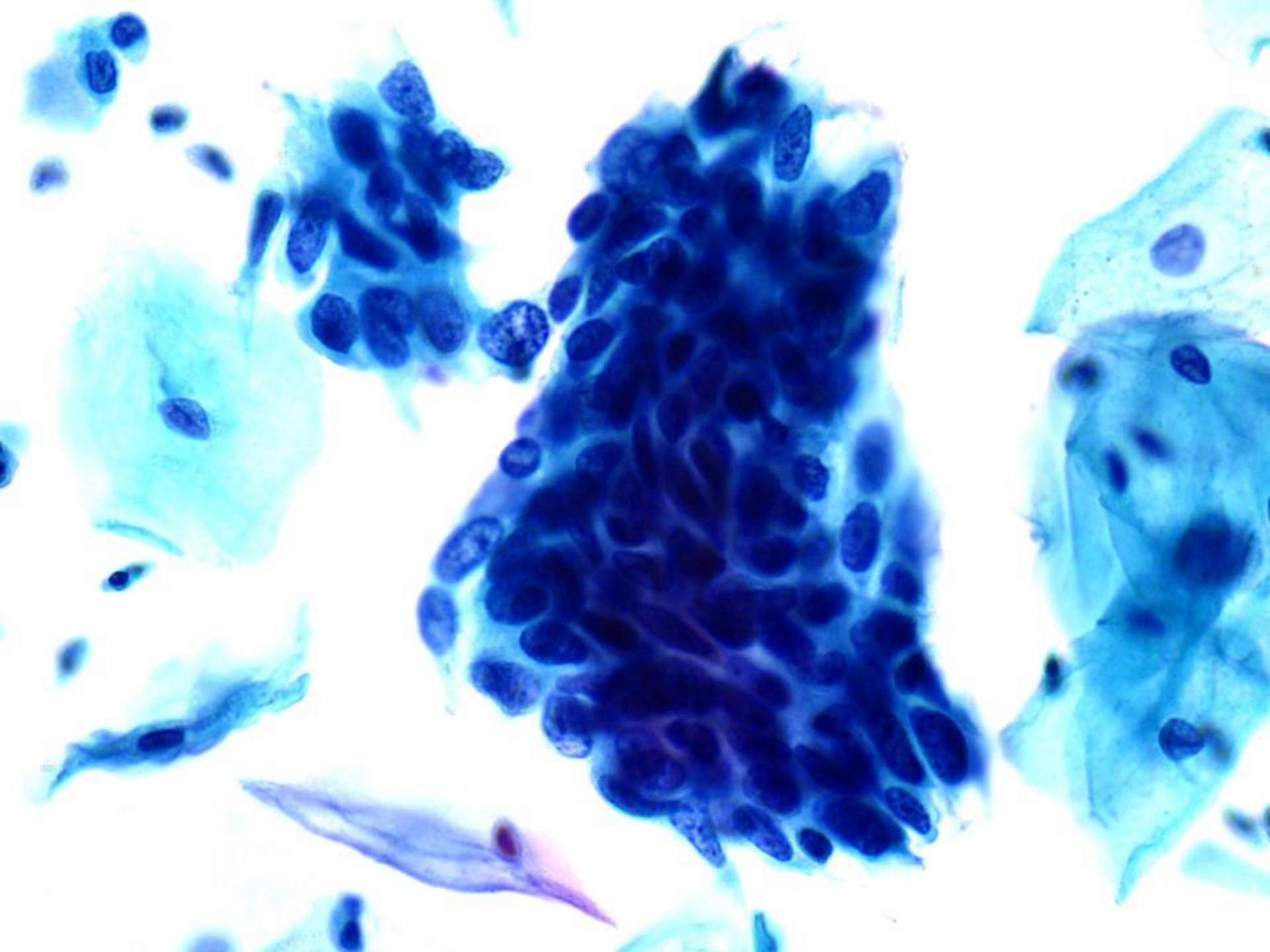
HSIL WITH A GLANDULAR APPEARANCE

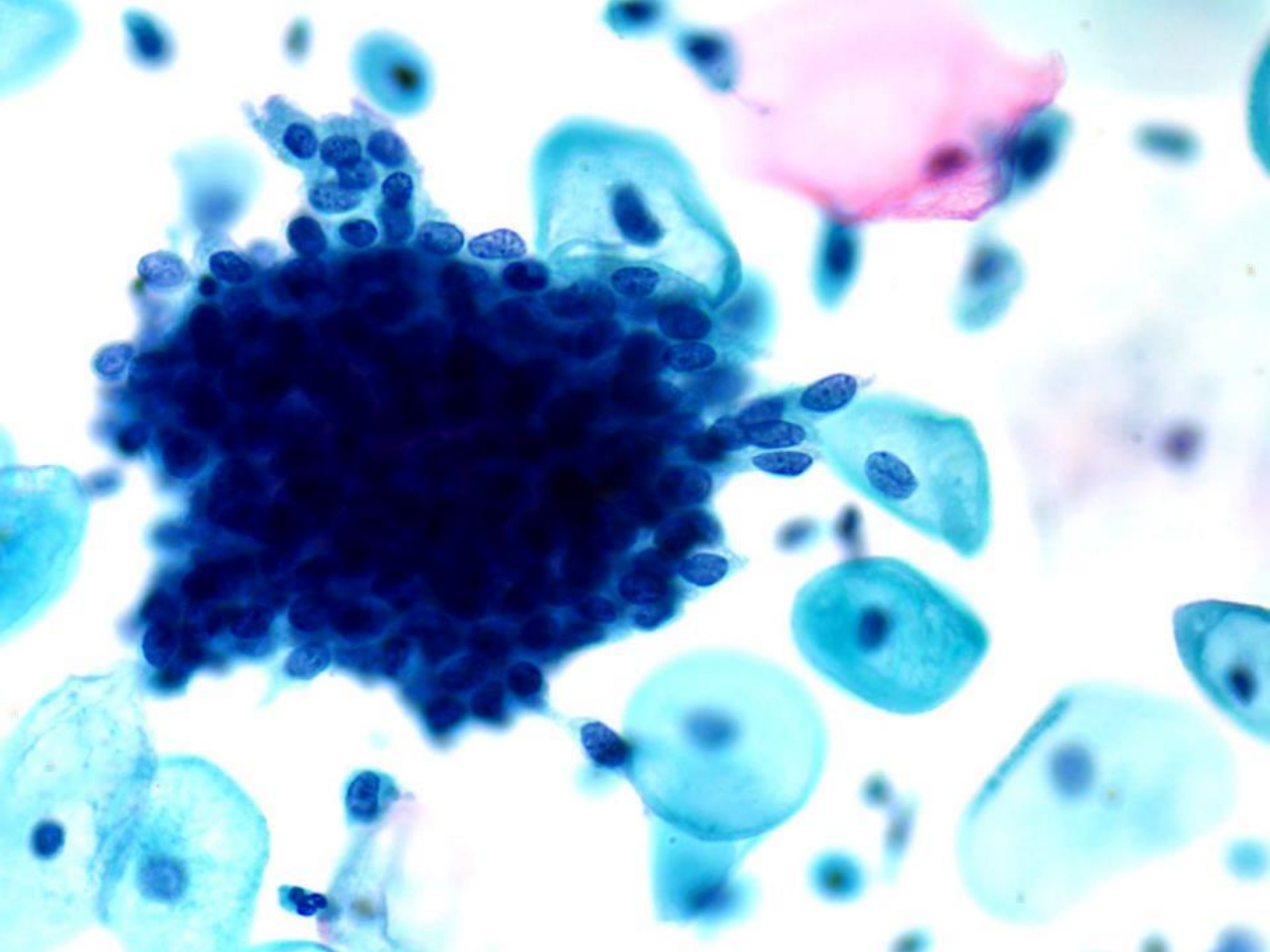


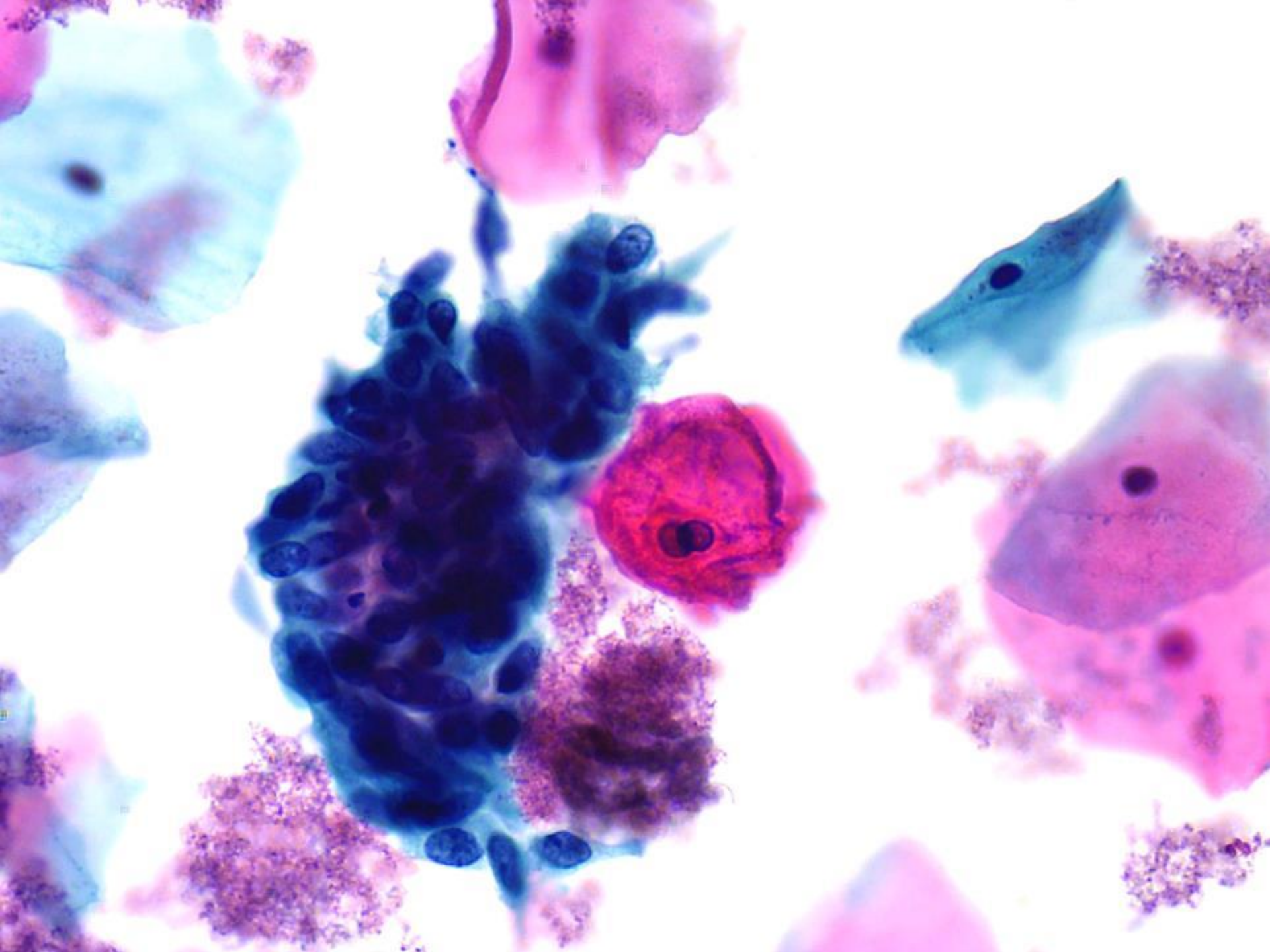


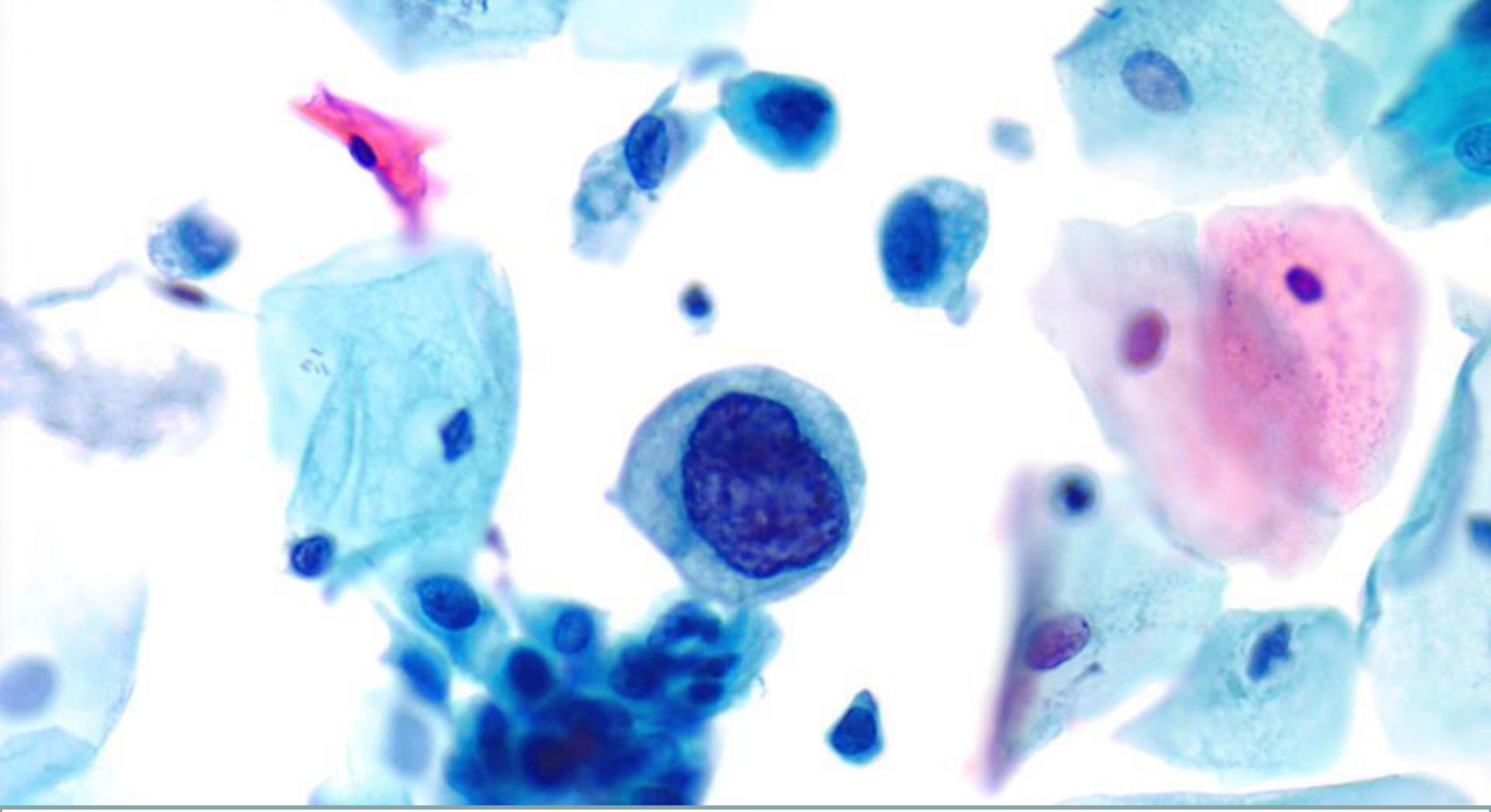




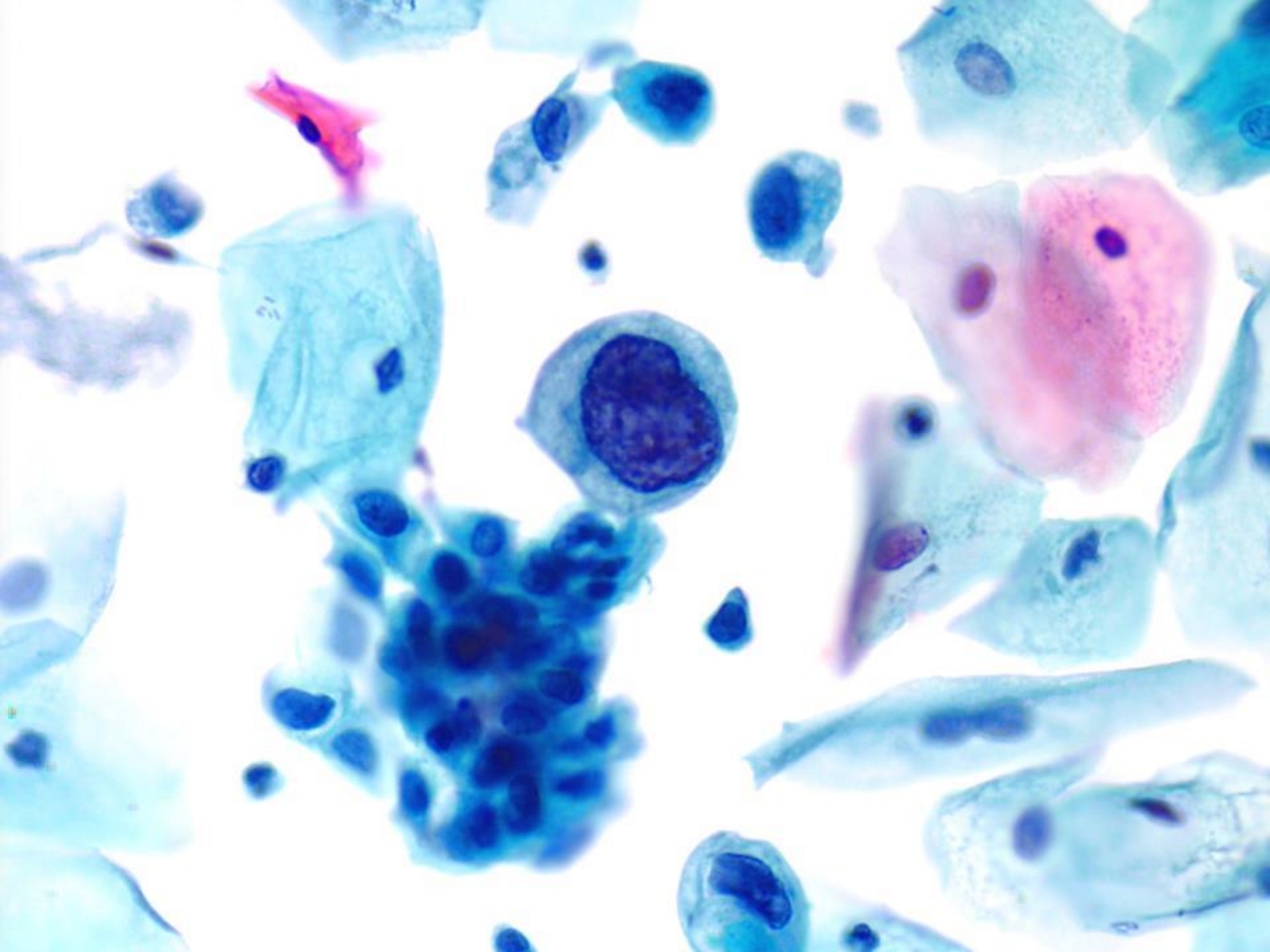








“LITIGATION CELLS”



ASC-H

ASC-H

- No significant difference in risk of HSIL when ASC-H made on CPS vs. LBC
- Poor reproducibility
- Few studies compare CPS vs. LBC morphologically
- May be small with nuclei 2-3 size of a neutrophil

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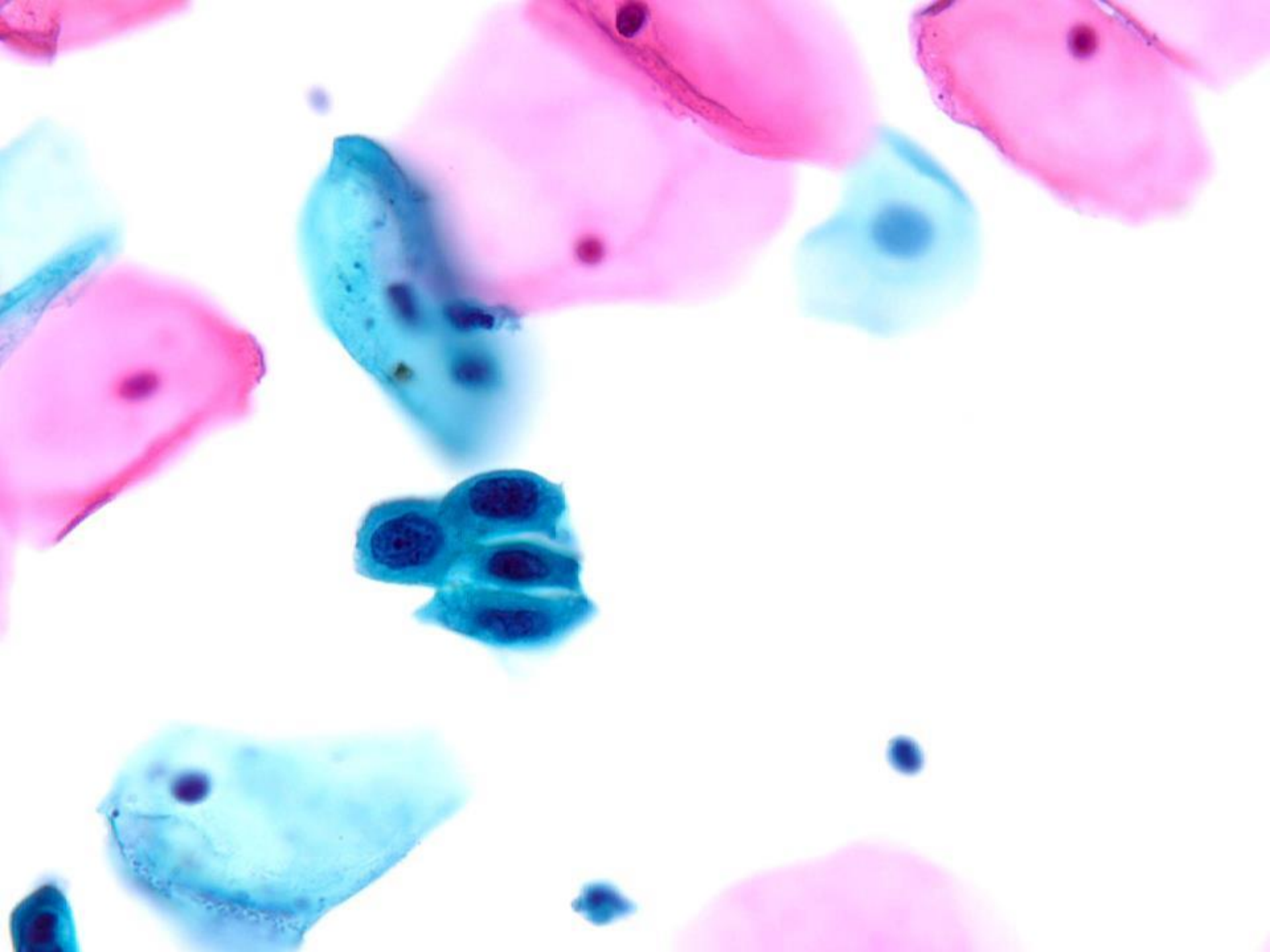
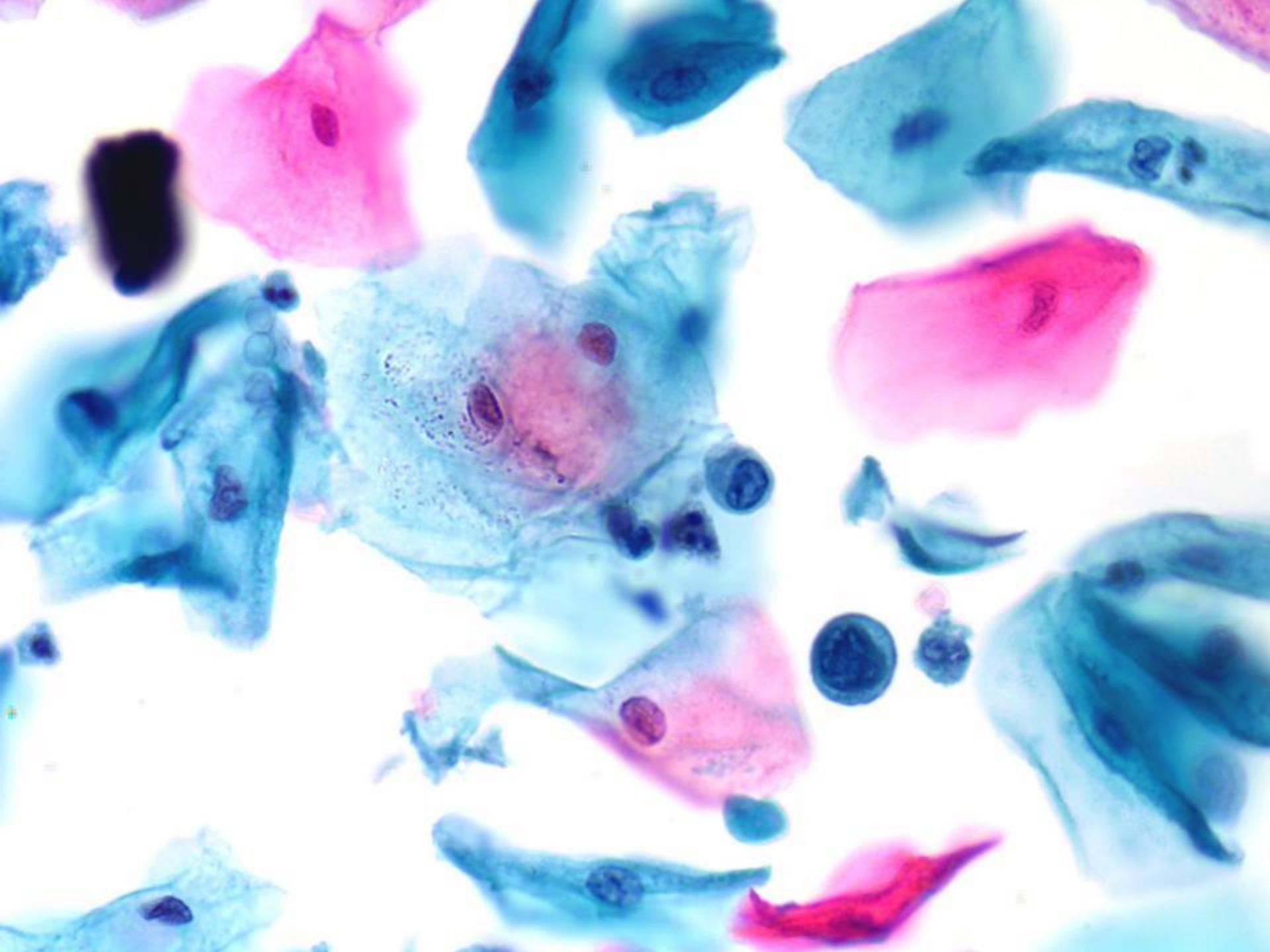
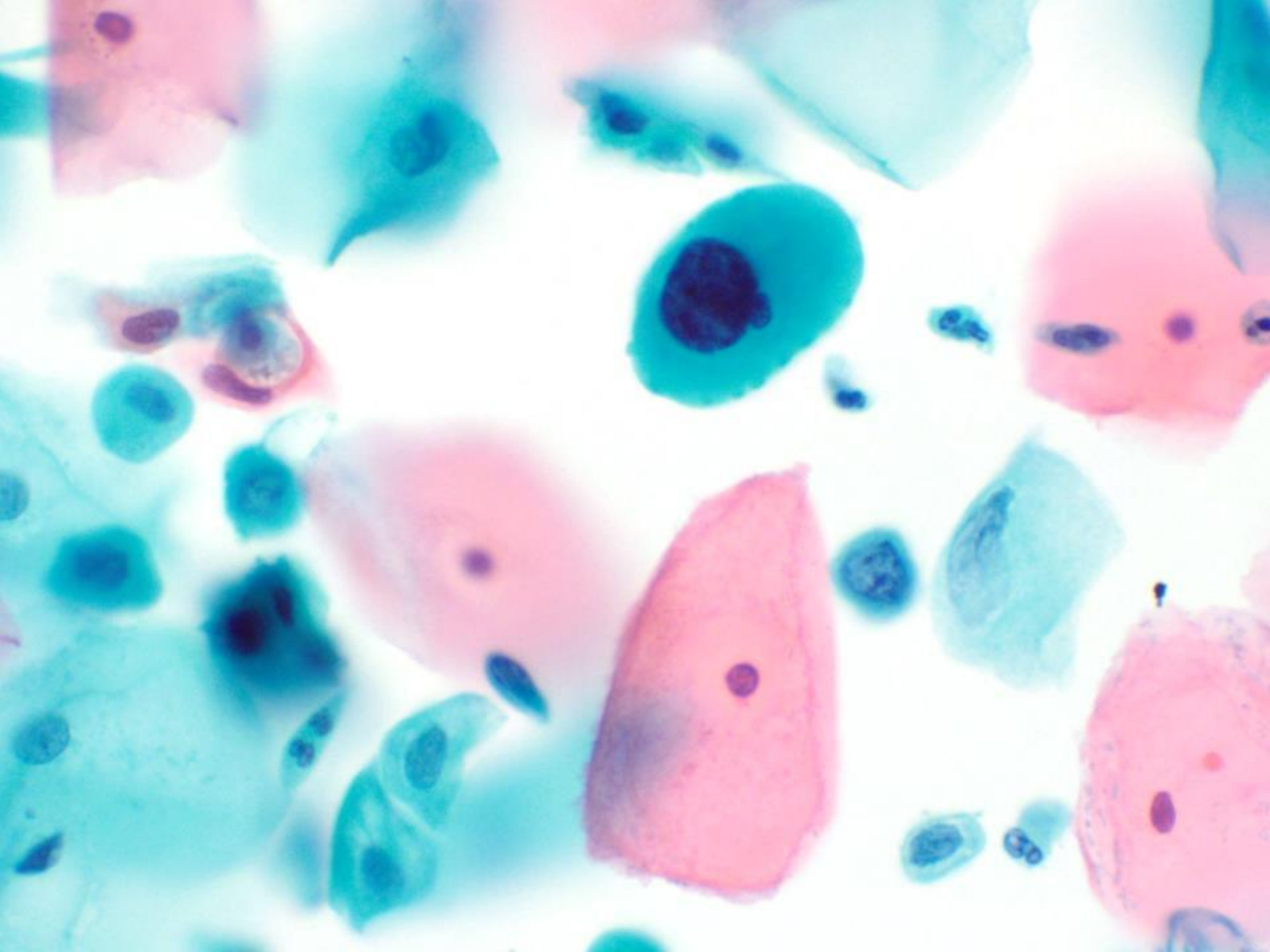
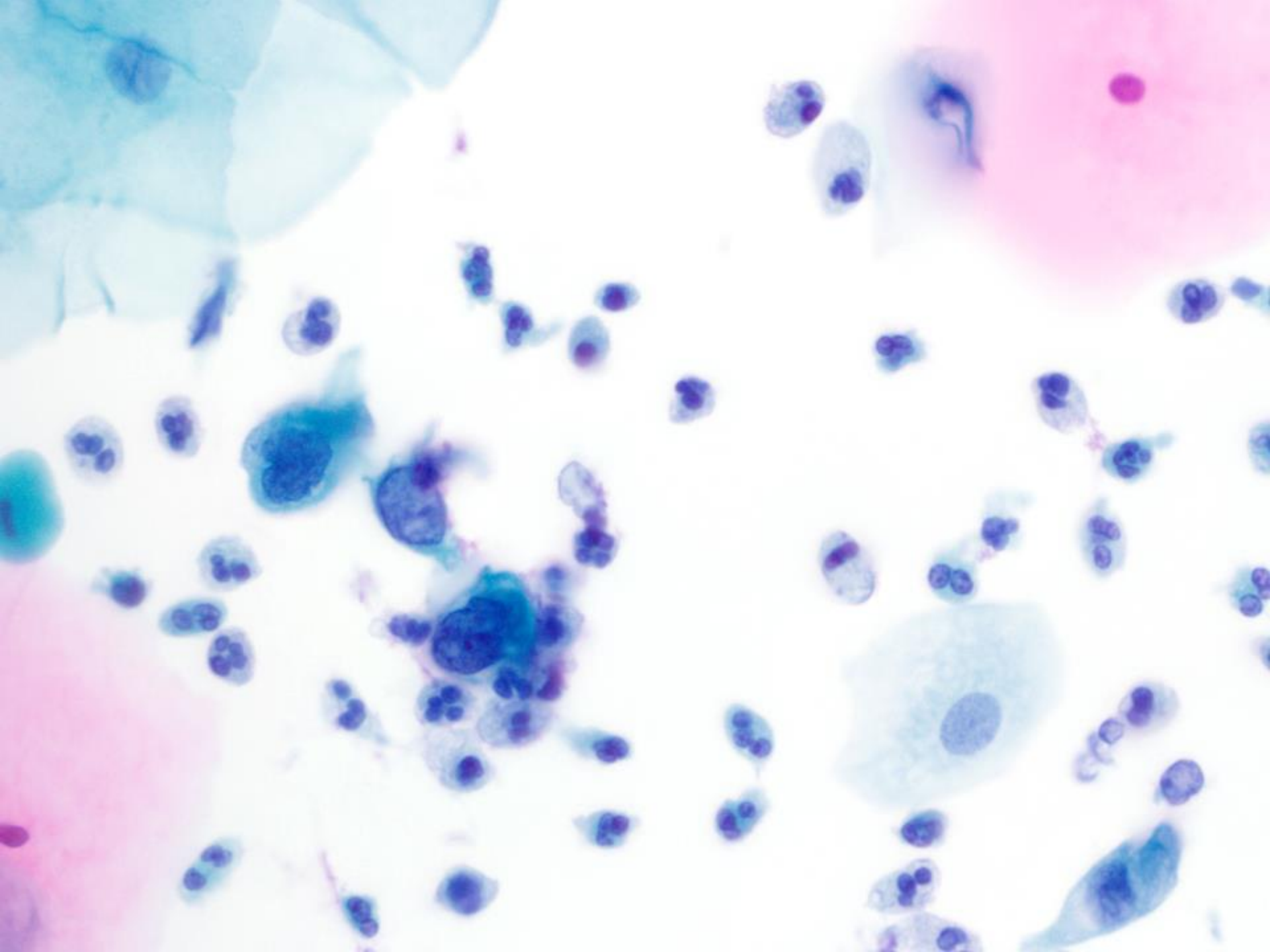
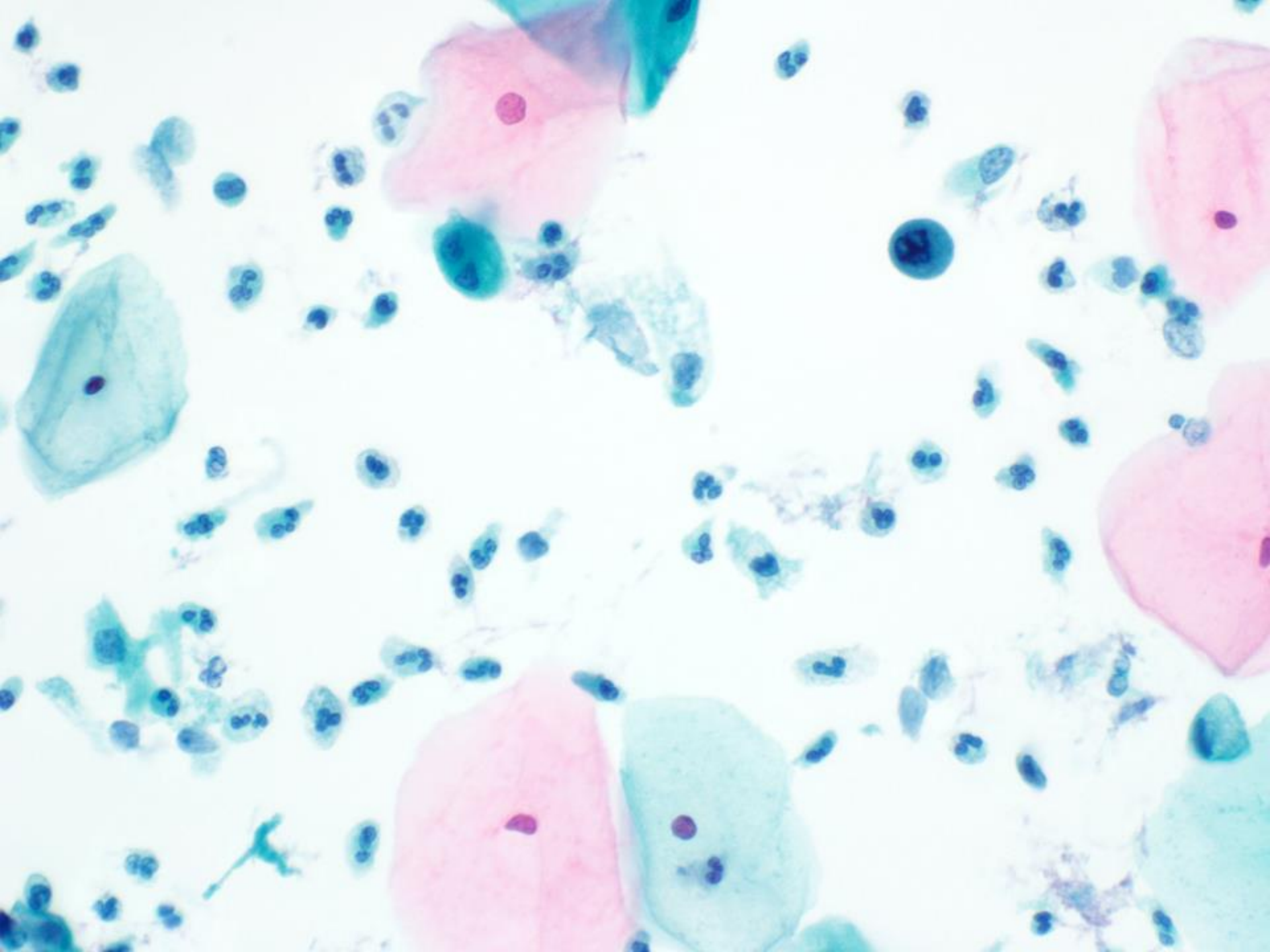
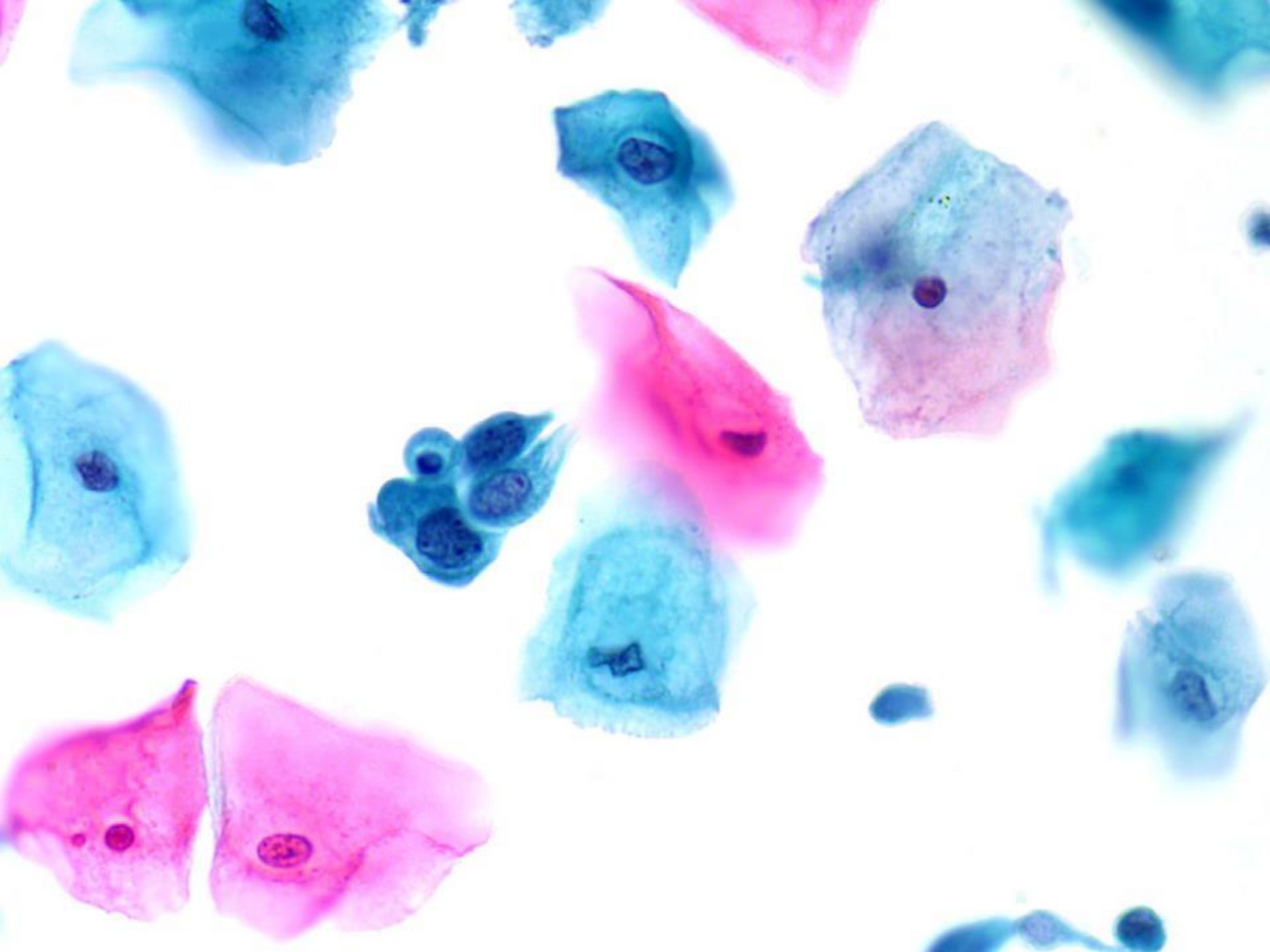


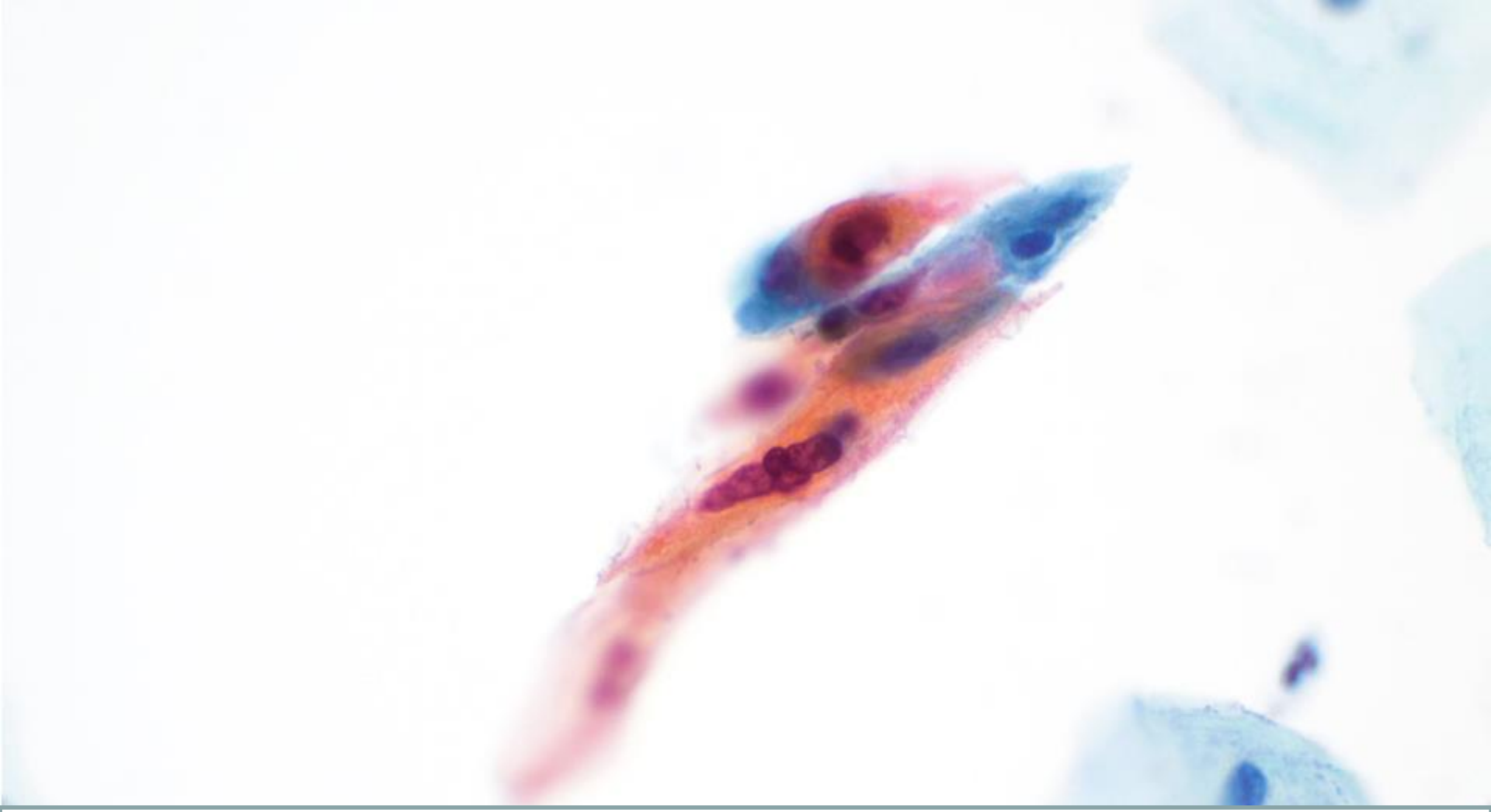




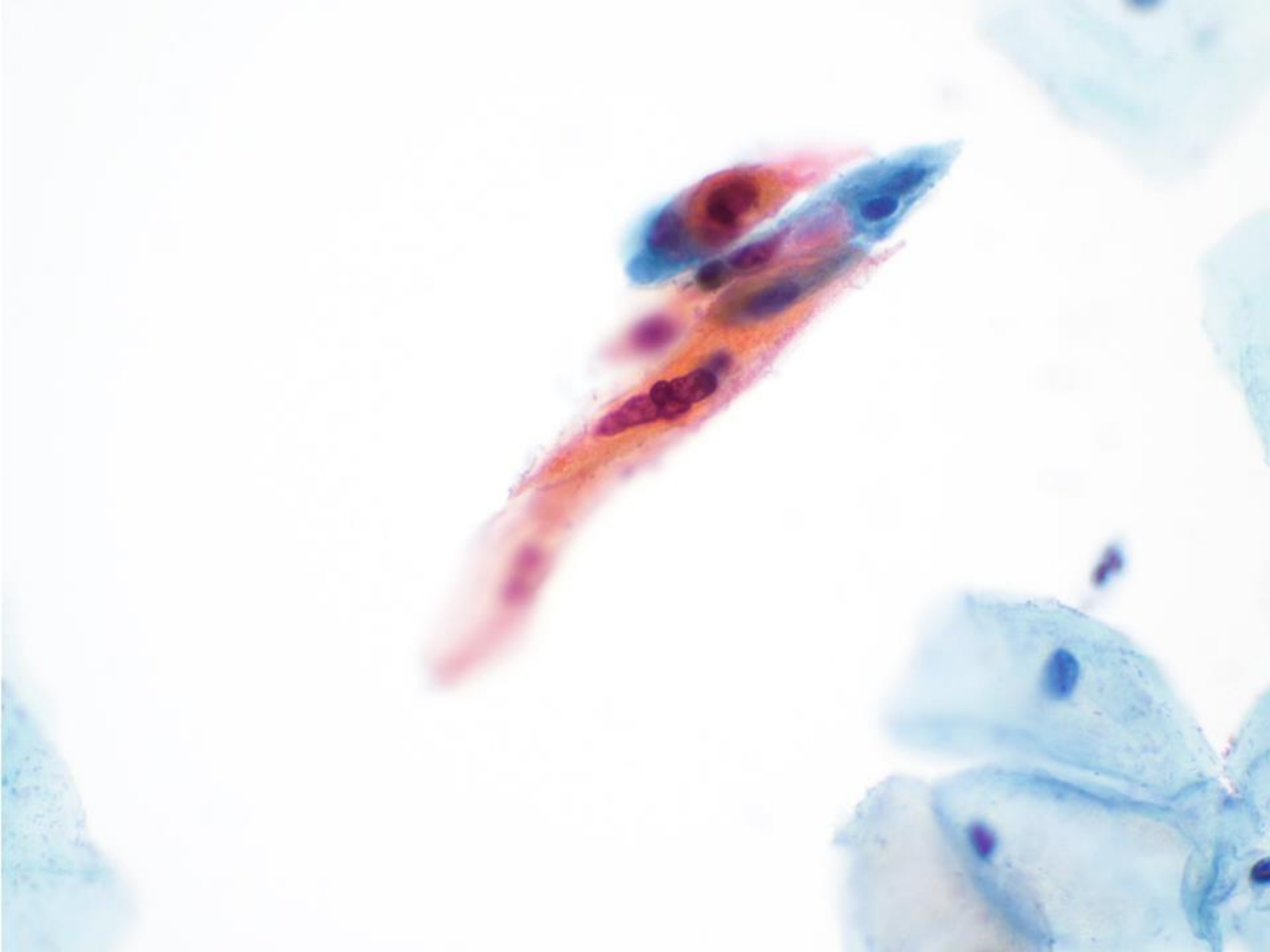


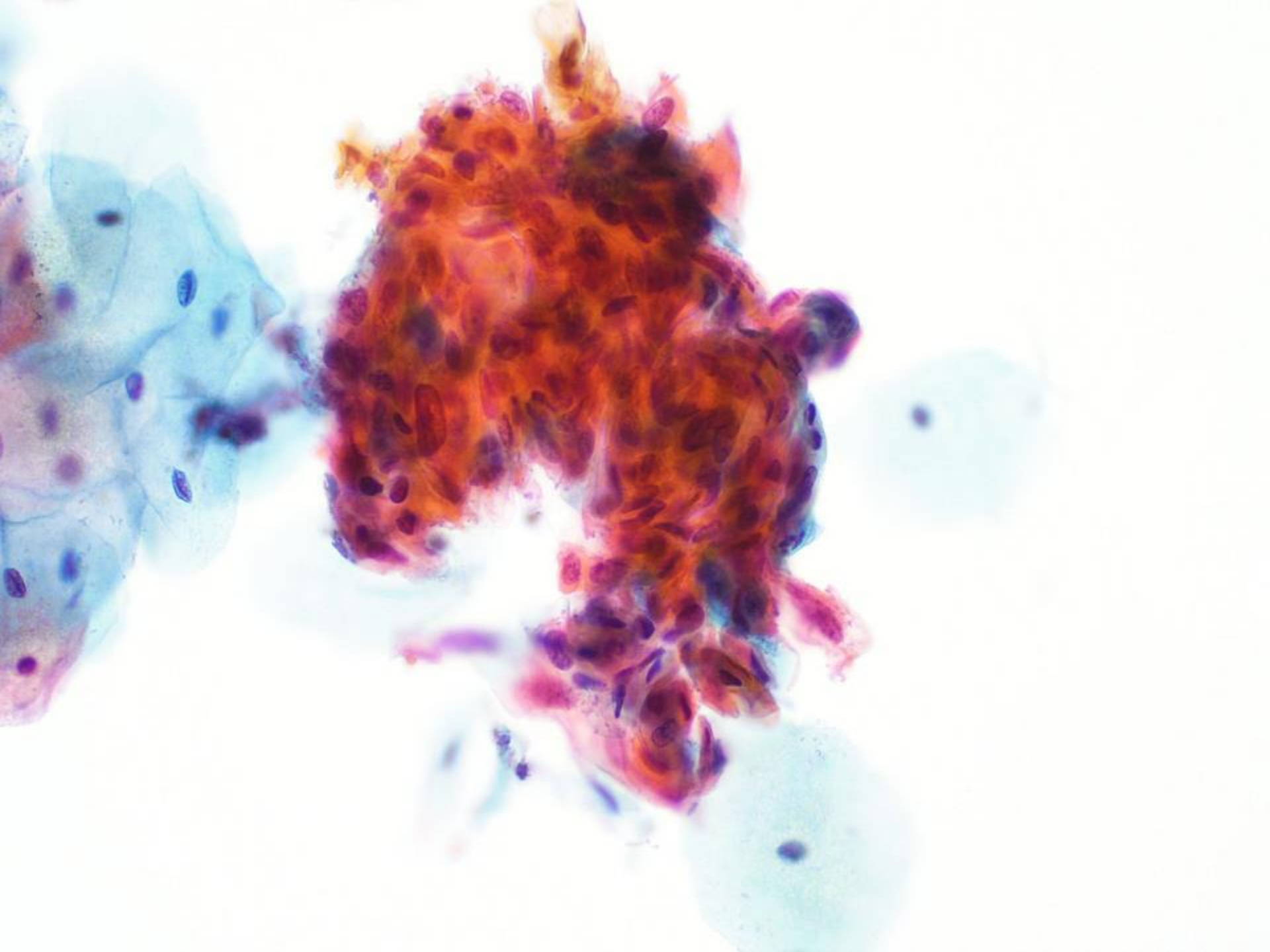


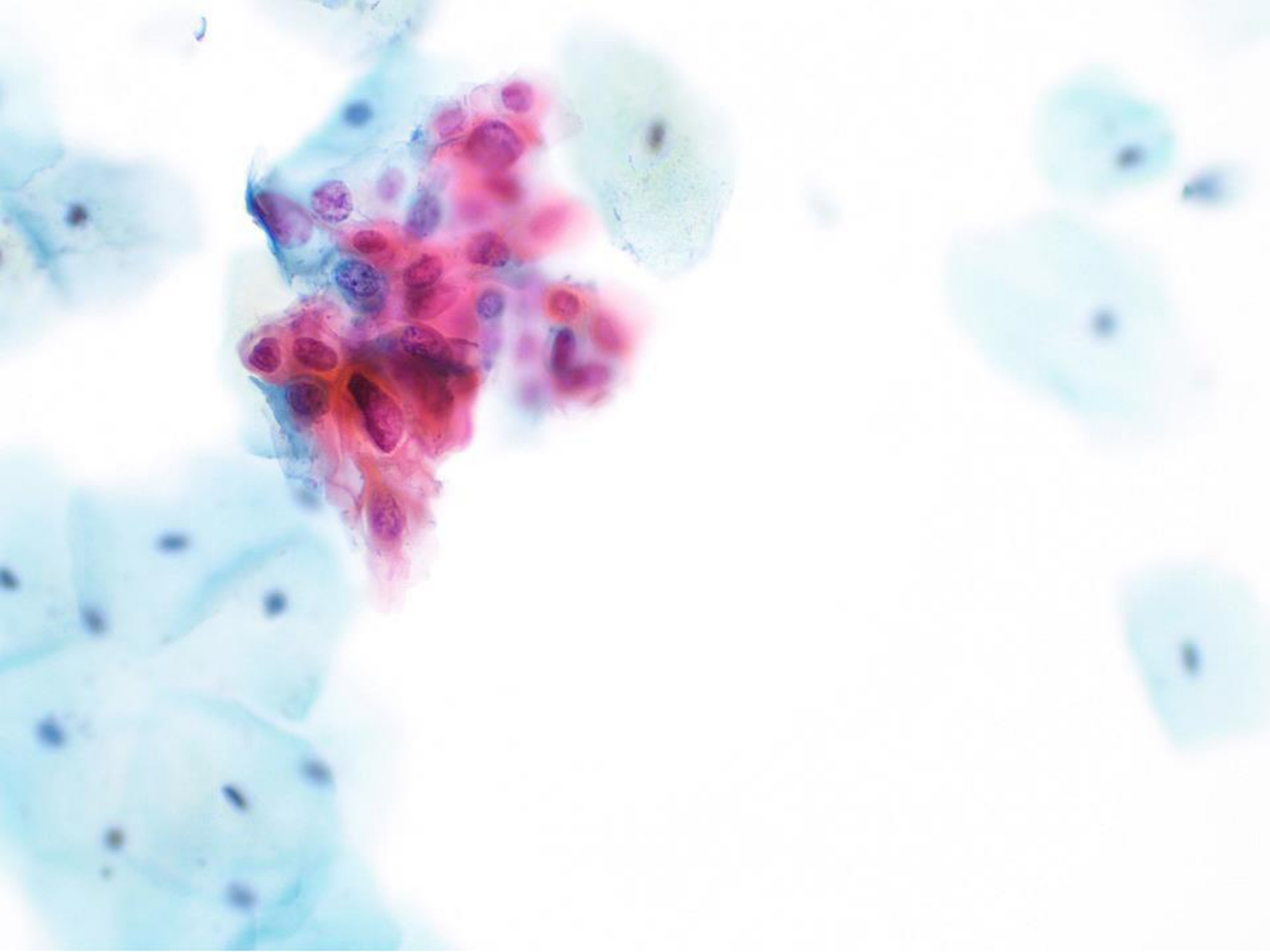




KERATINIZING HSIL







SQUAMOUS CELL CARCINOMA

Differences compared to conventional smear:

- Lower tumor cellularity
- Rounding up may result in a glandular appearance (R/O adenocarcinoma)
- Greater depth-of-focus
- “Clinging” tumor diathesis
- Tend to be less hyperchromatic
- Nucleoli tend to be more prominent

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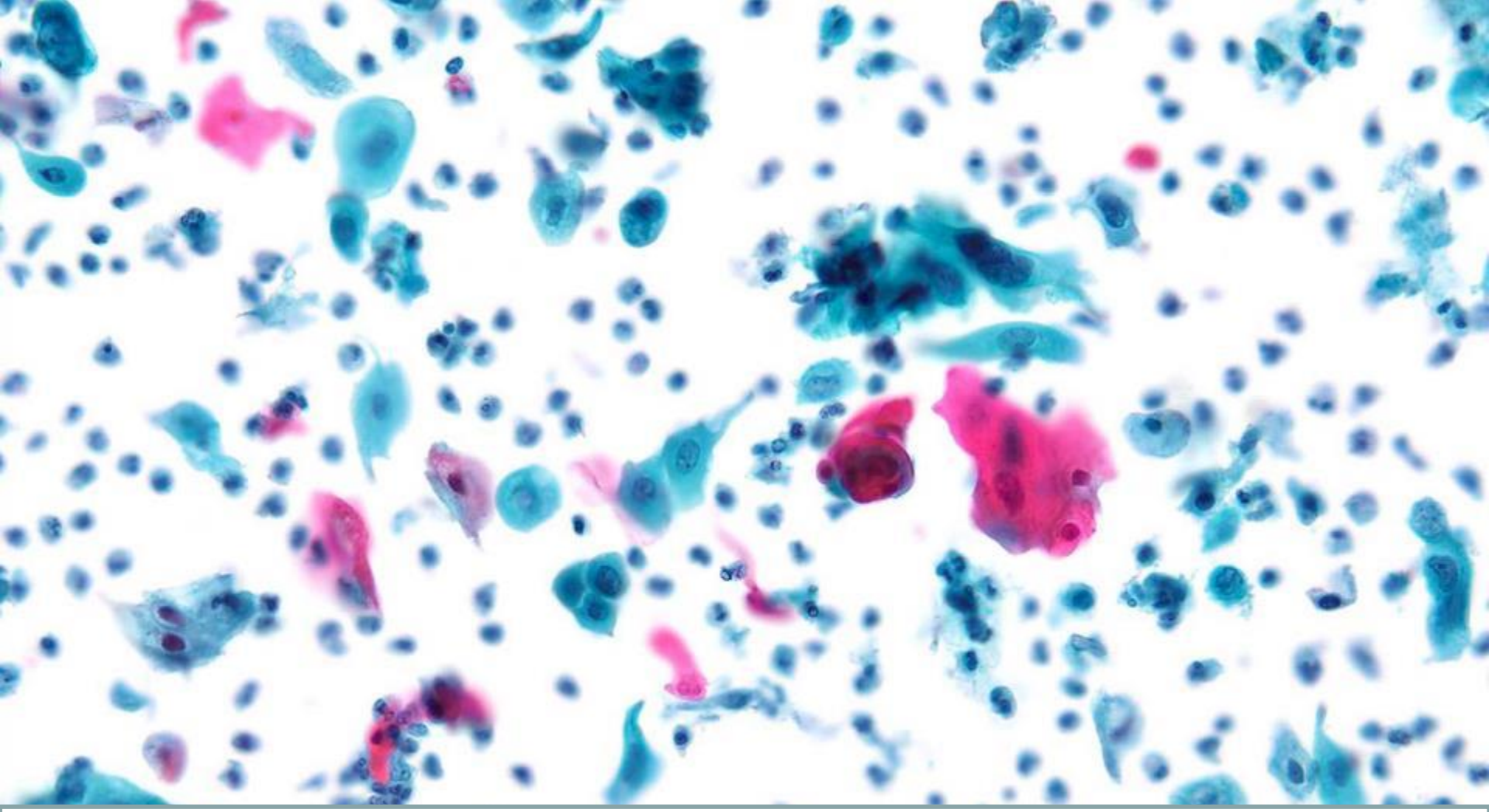
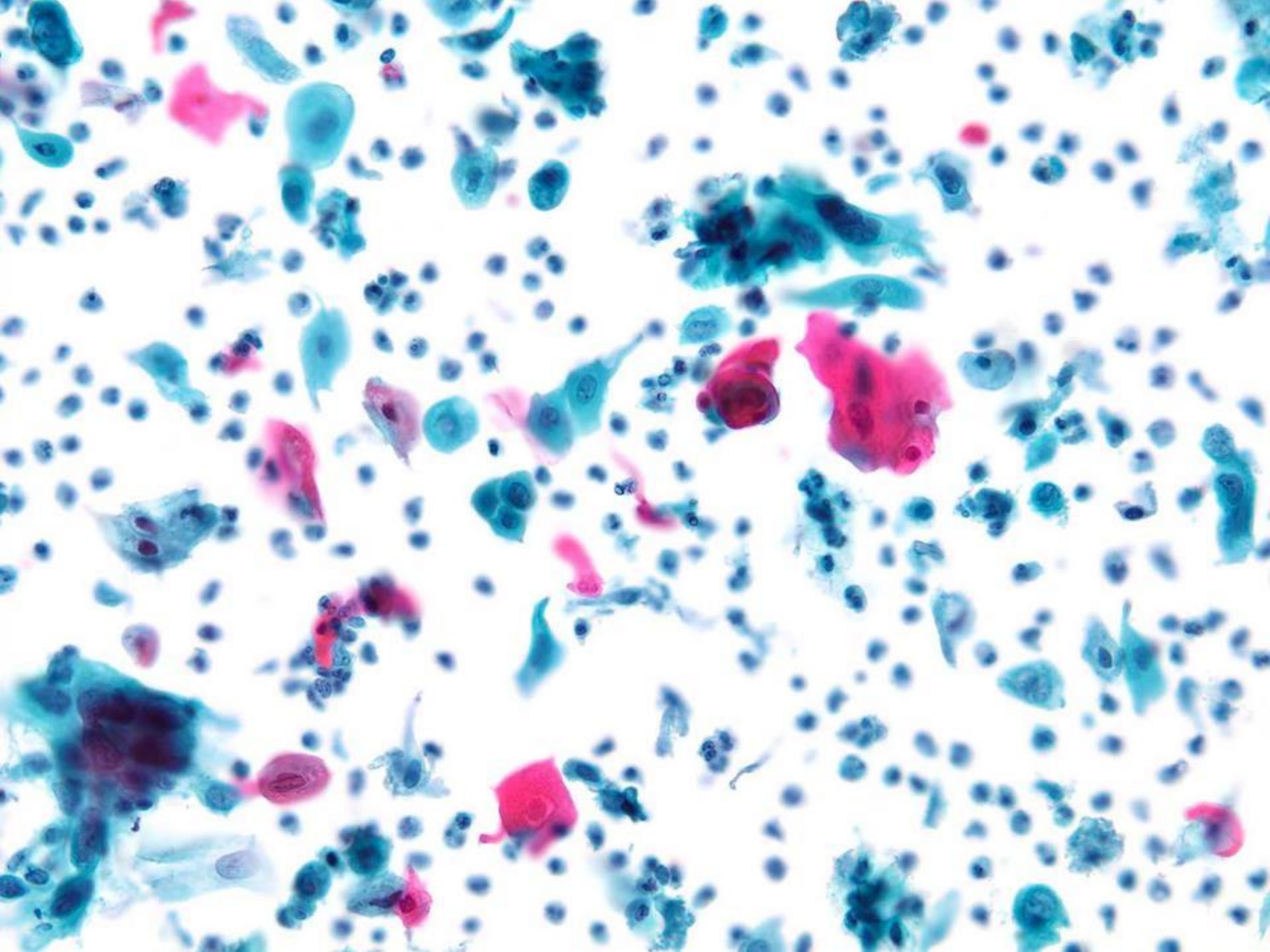
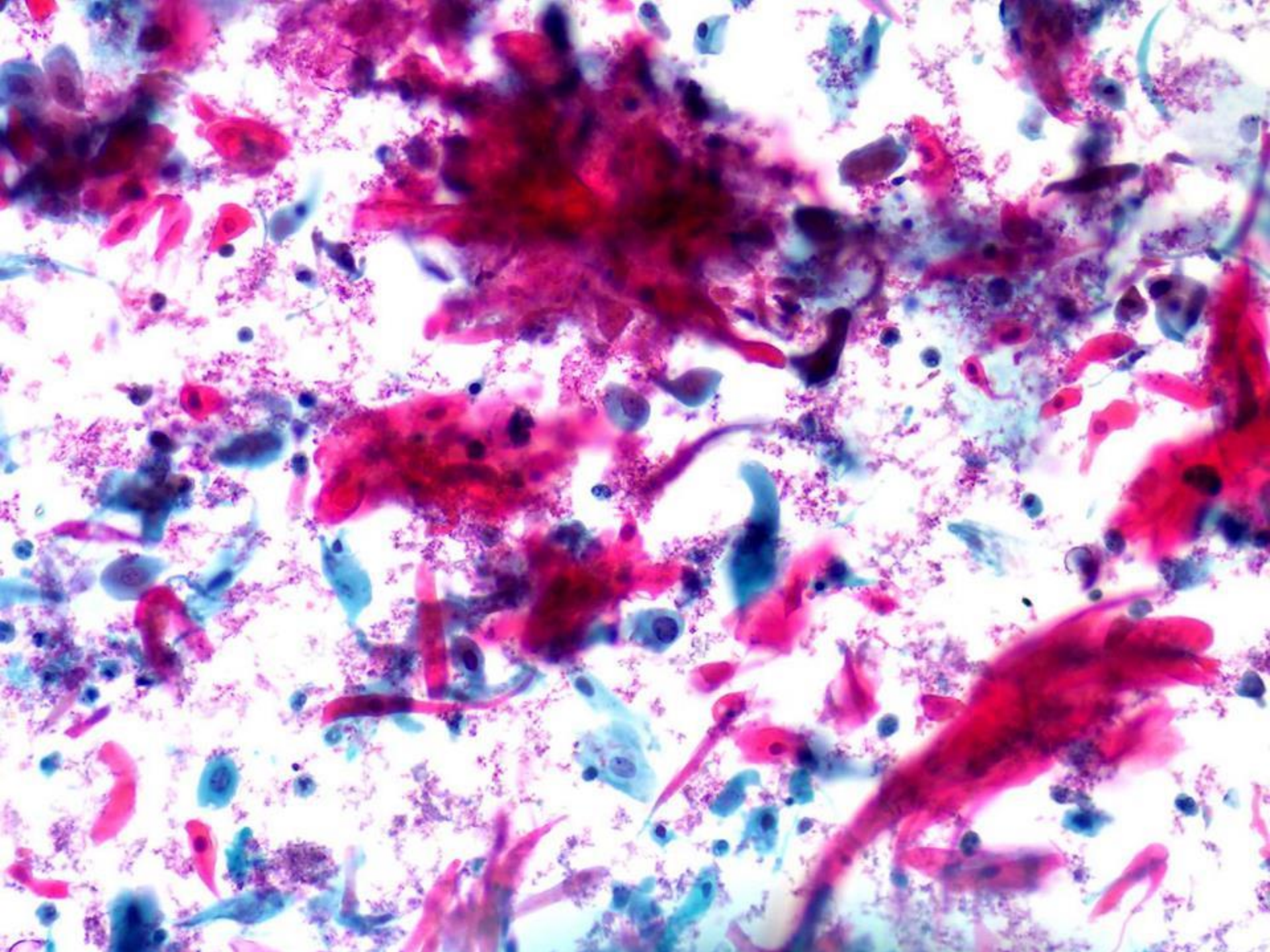
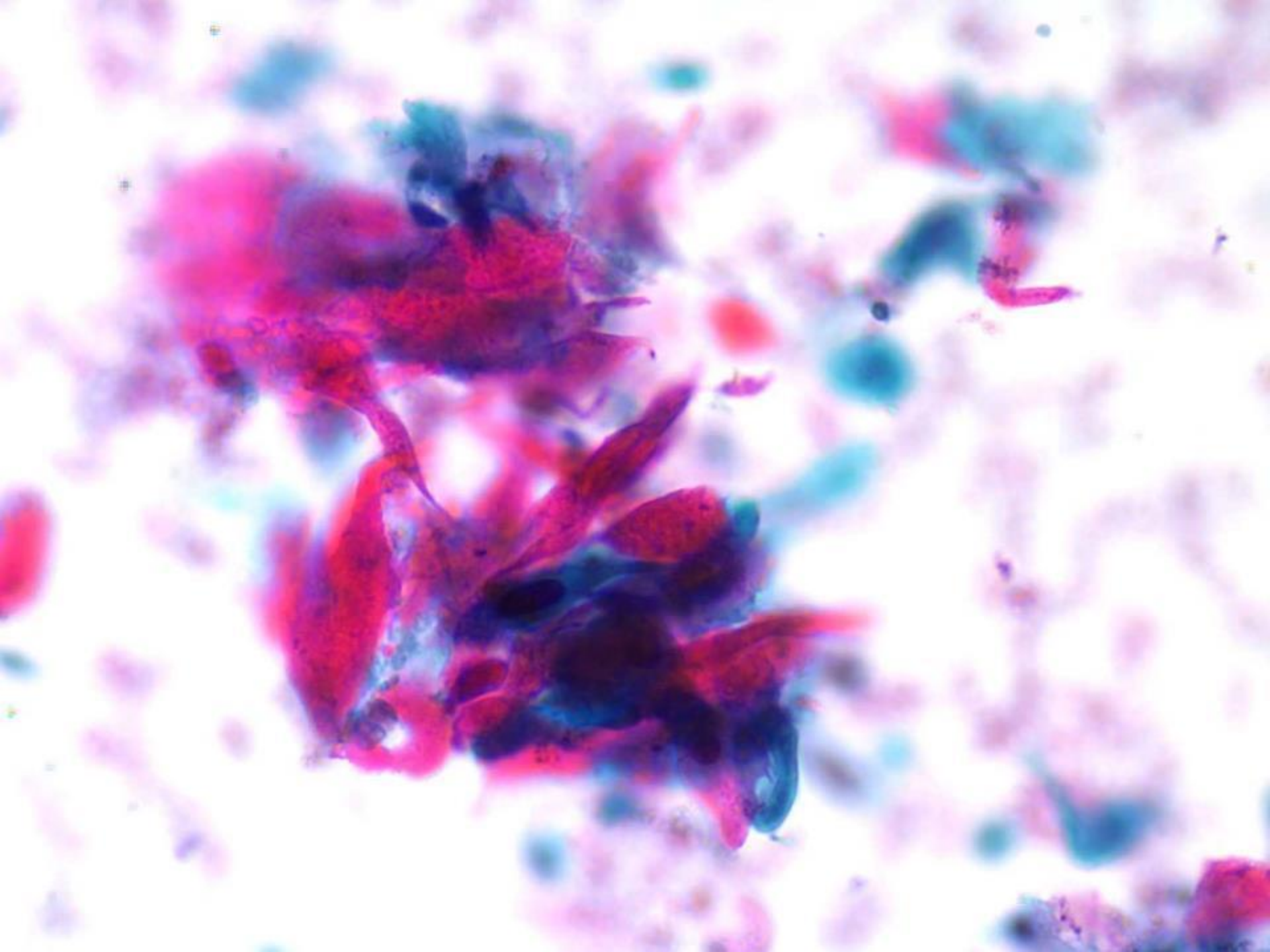
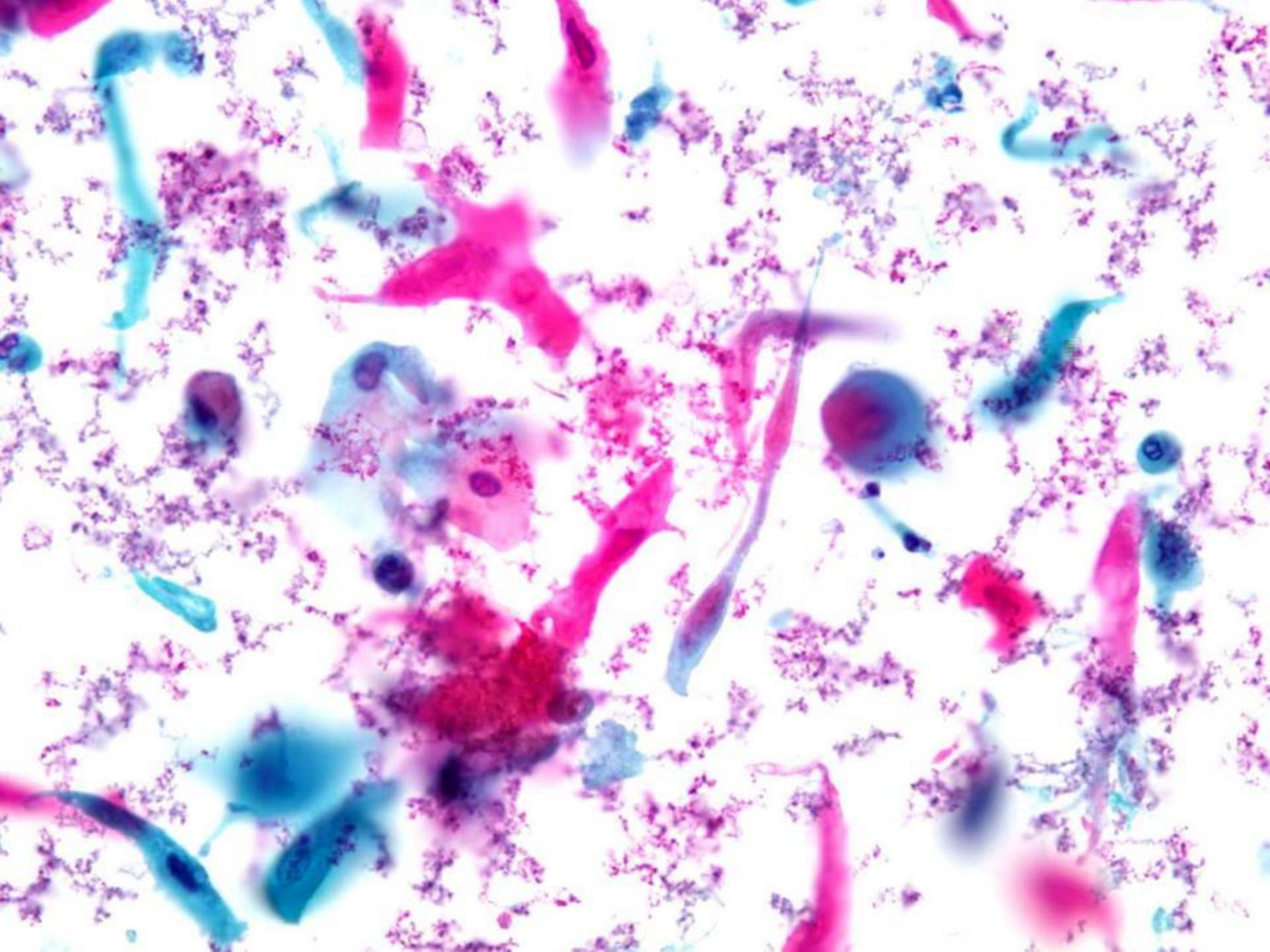


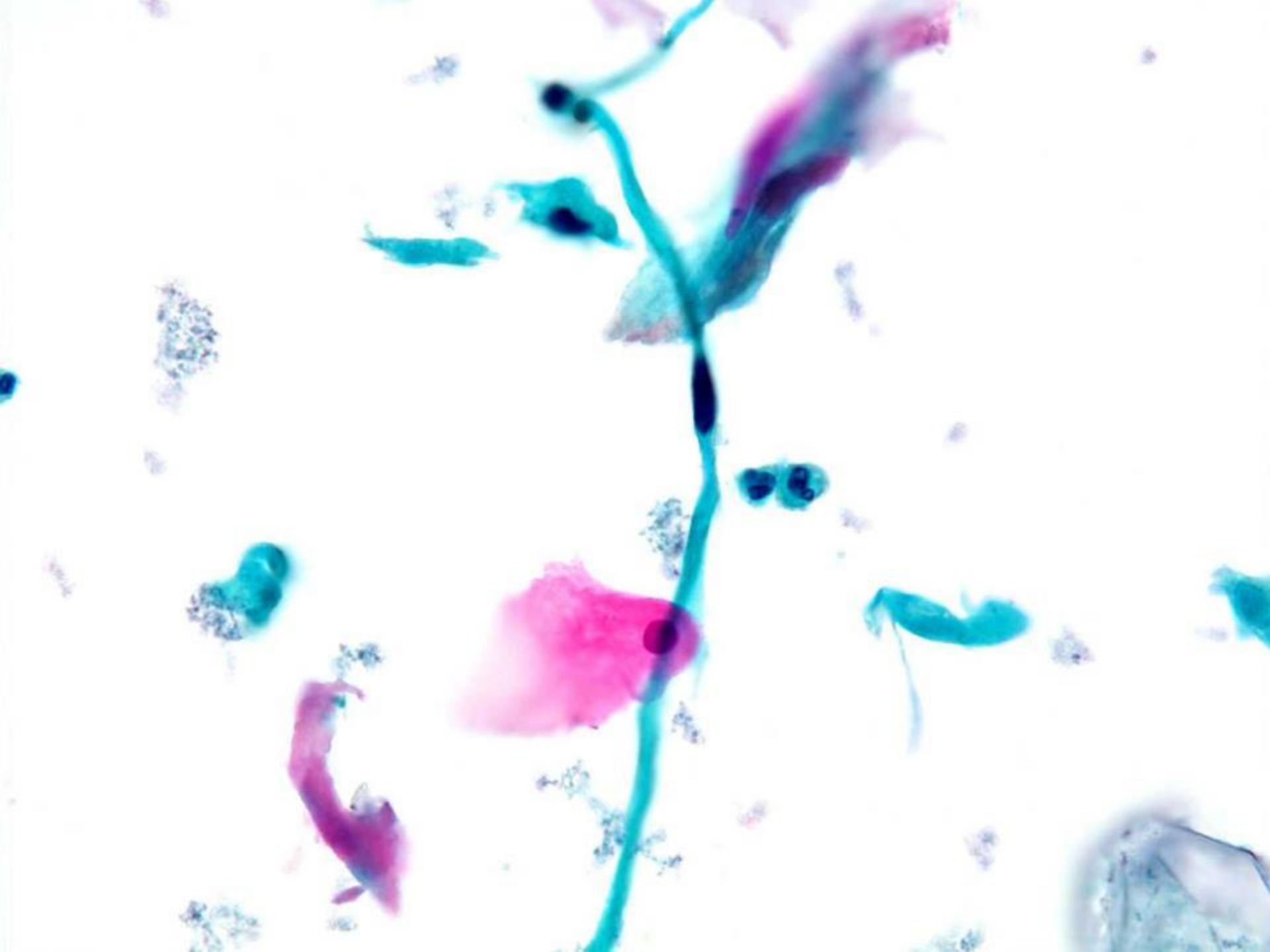
KERATINIZING SQUAMOUS CELL CARCINOMA

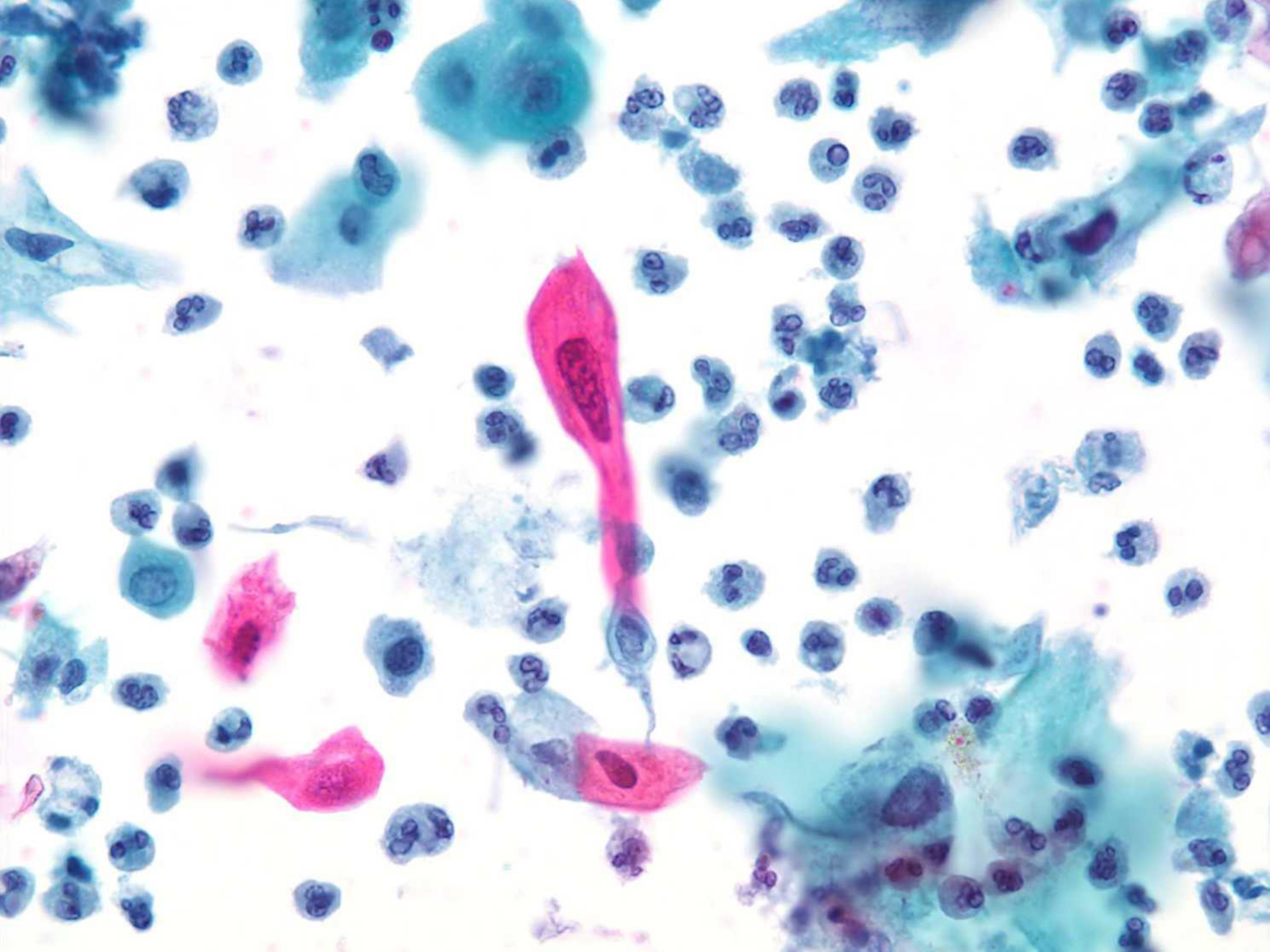


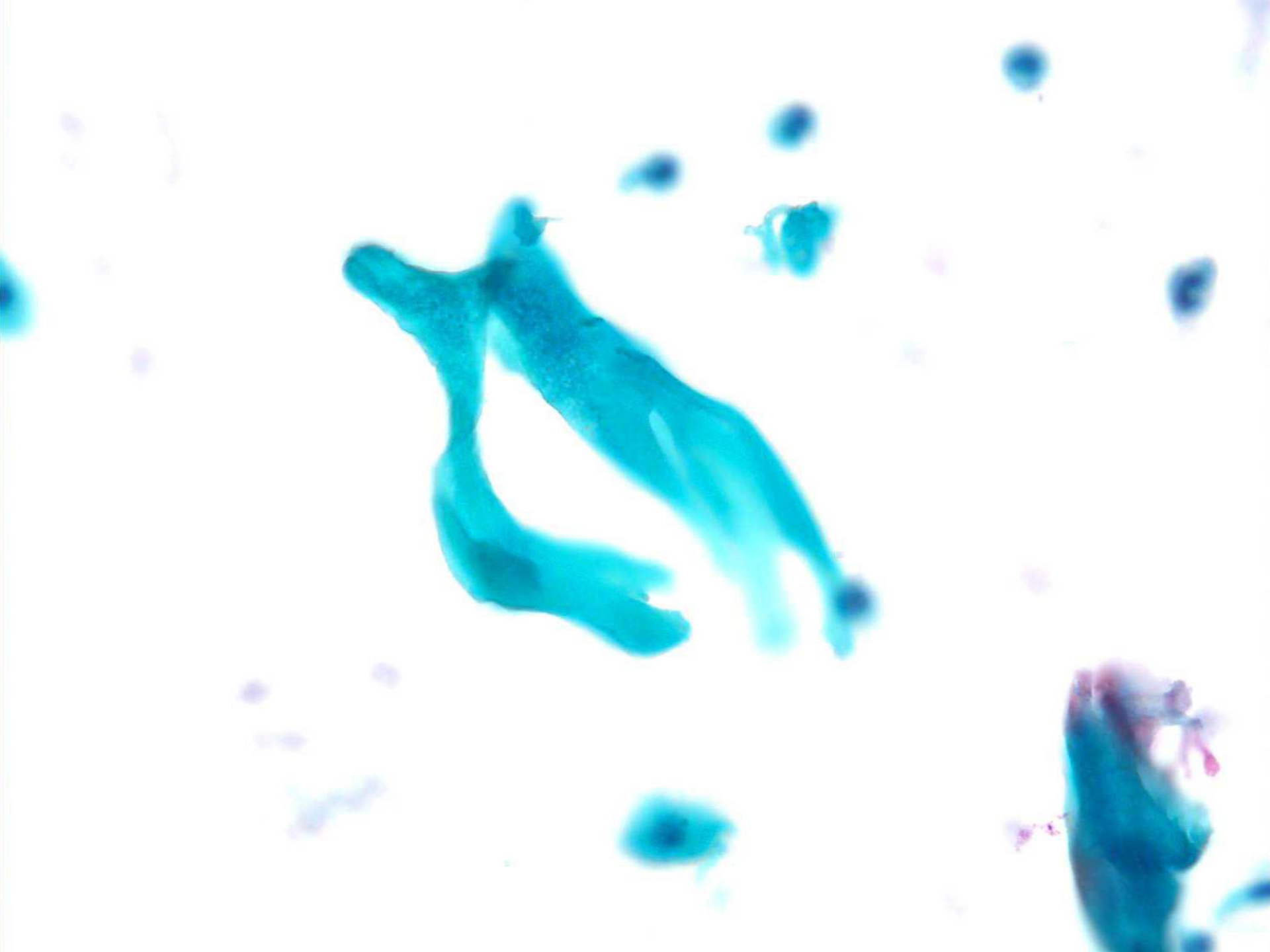


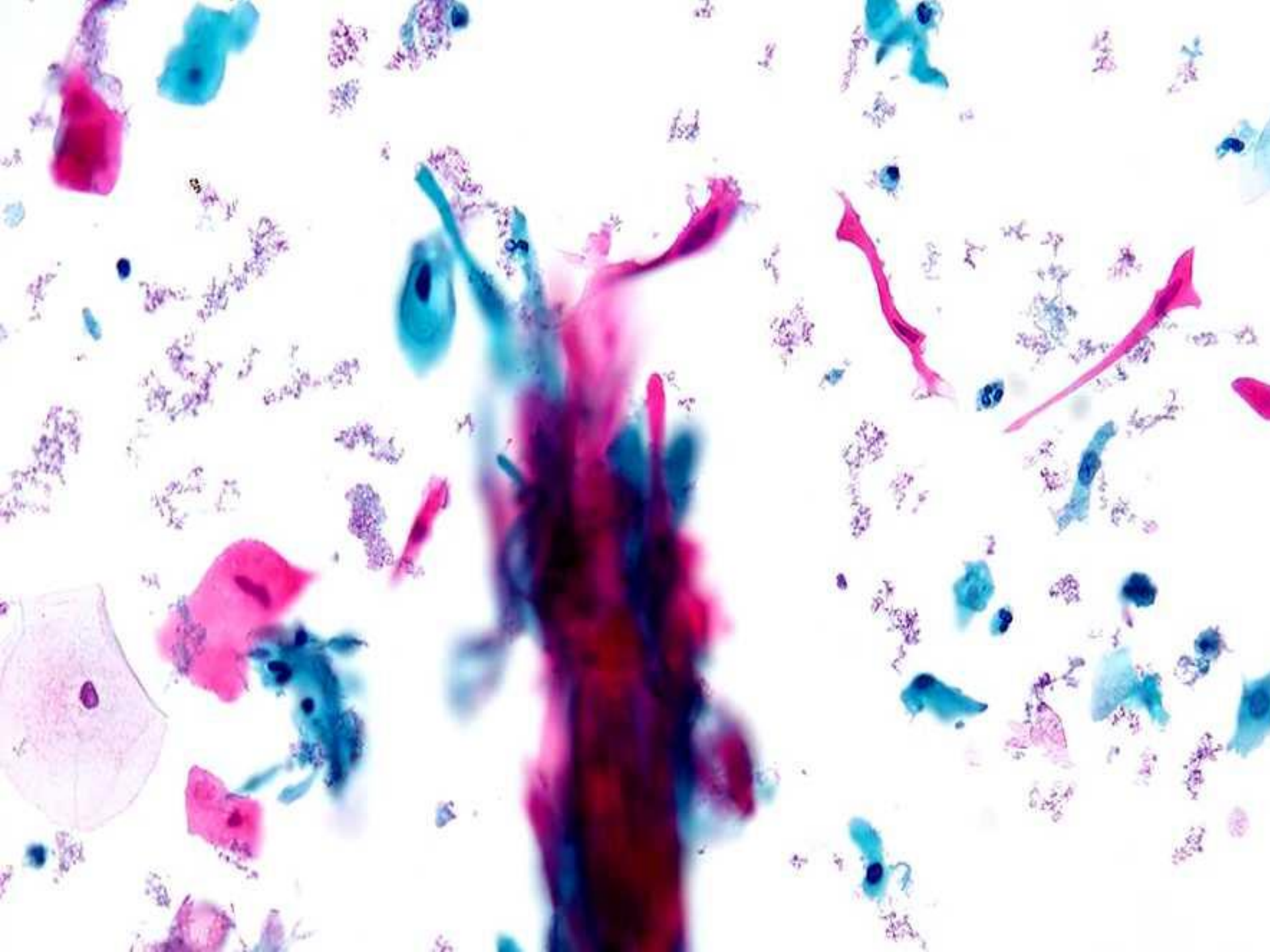


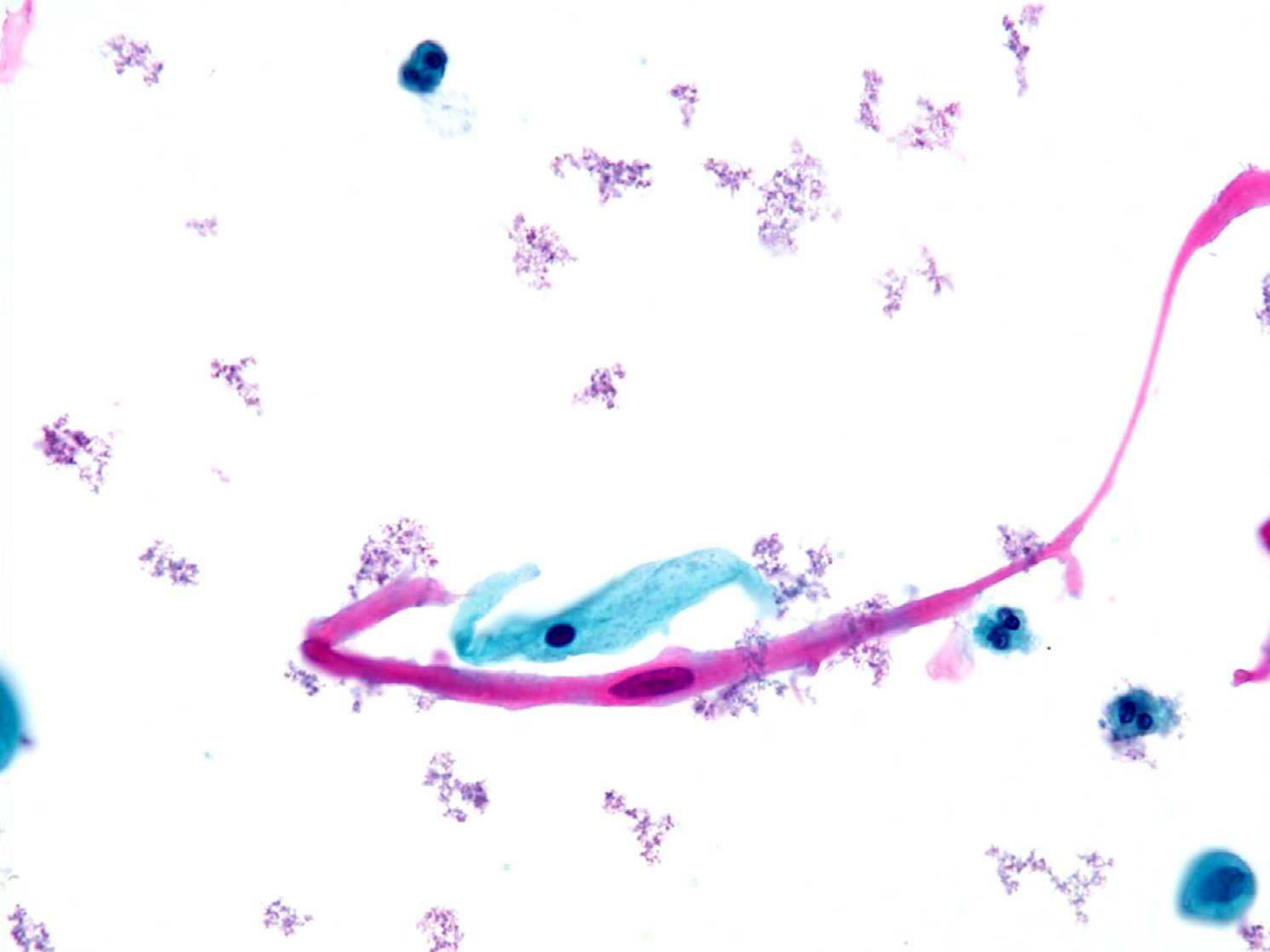


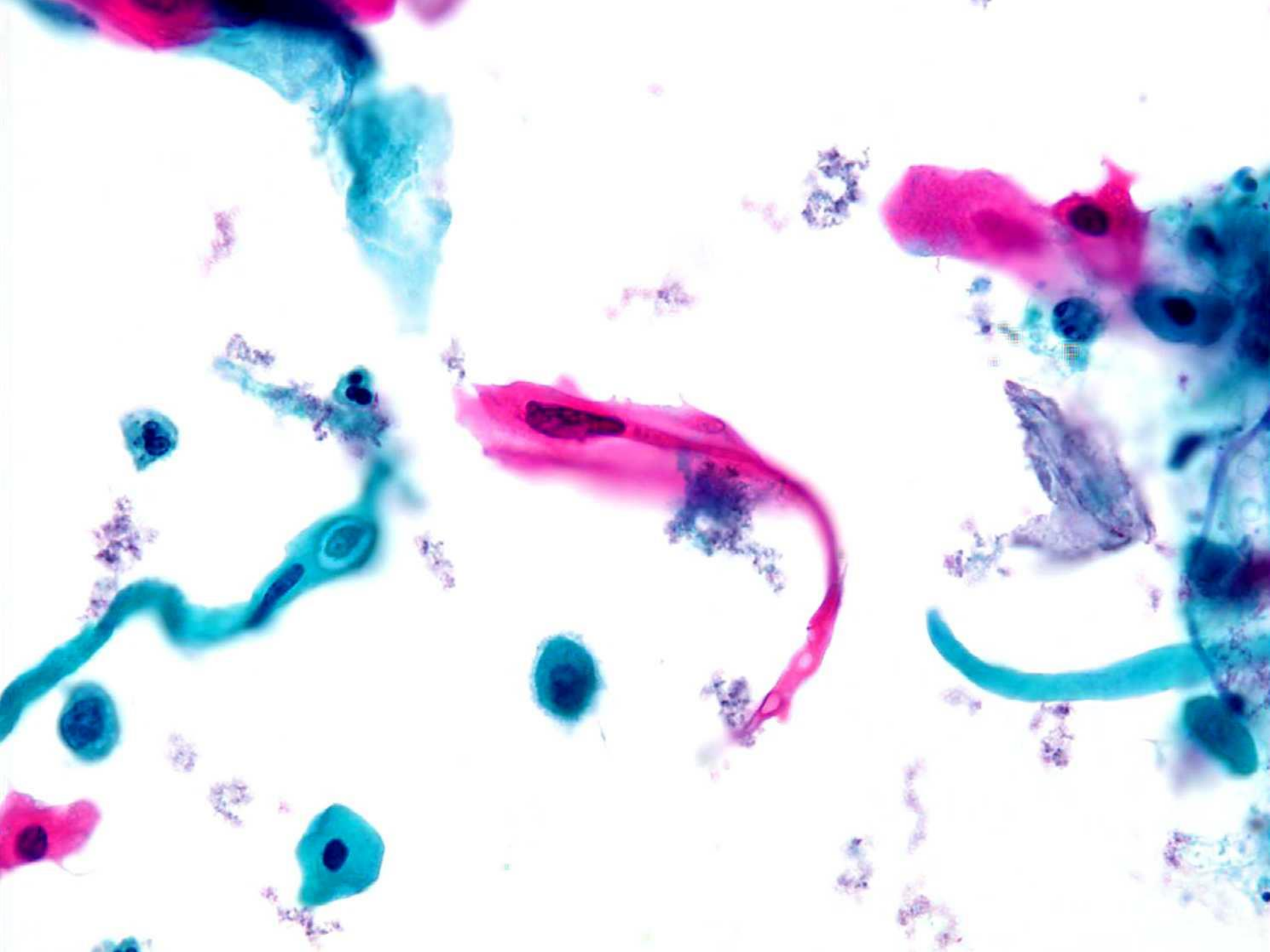


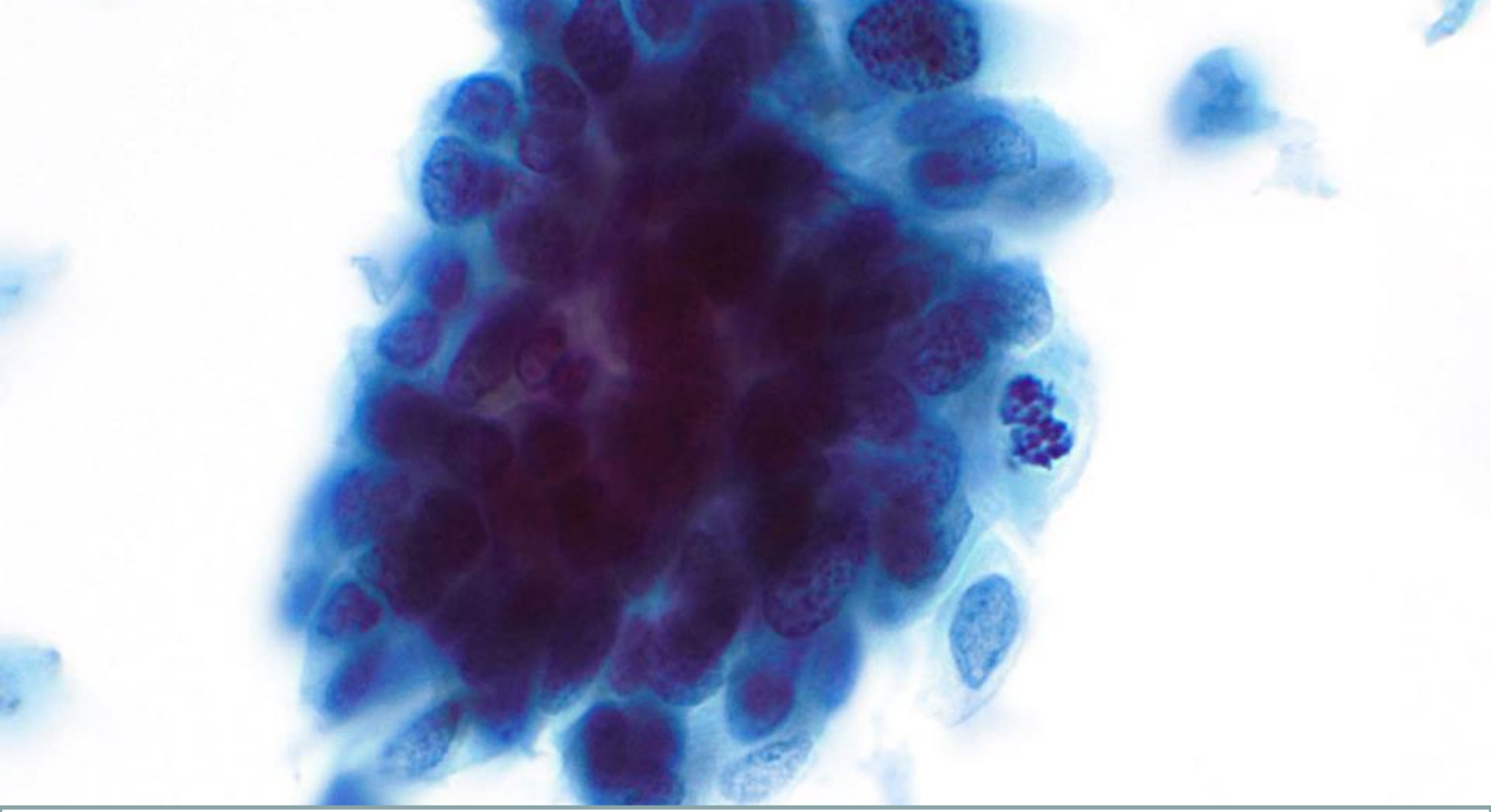




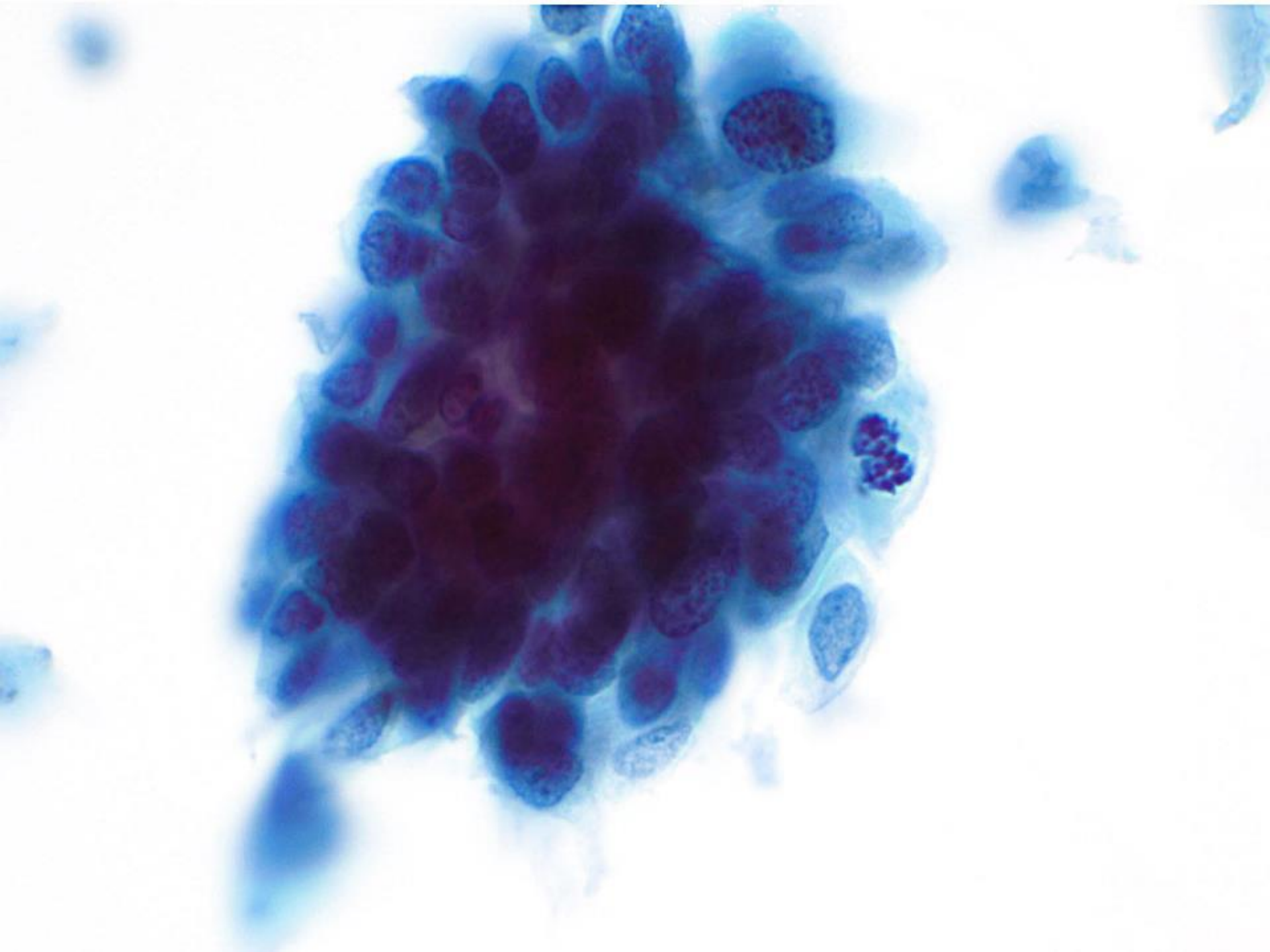


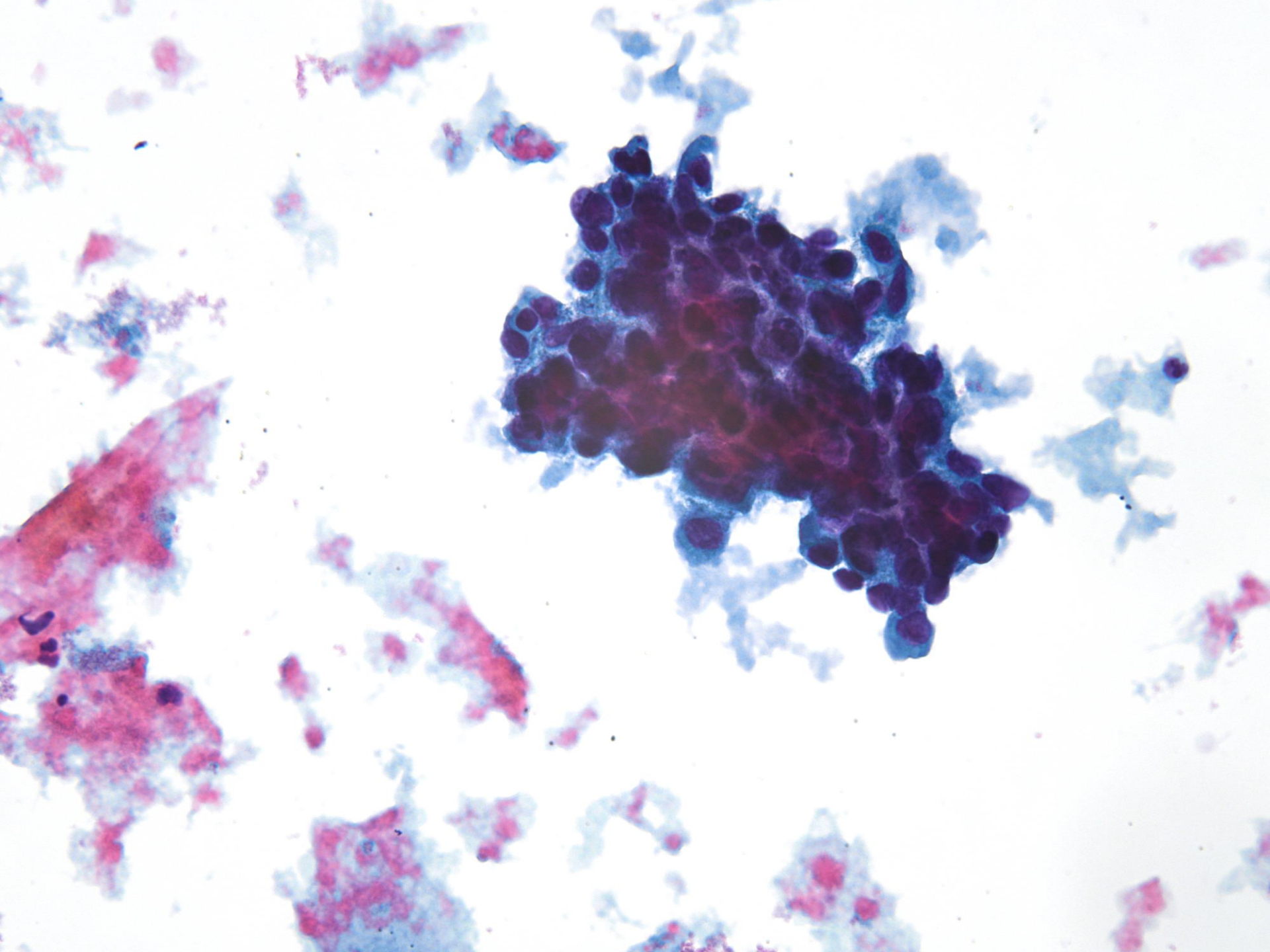


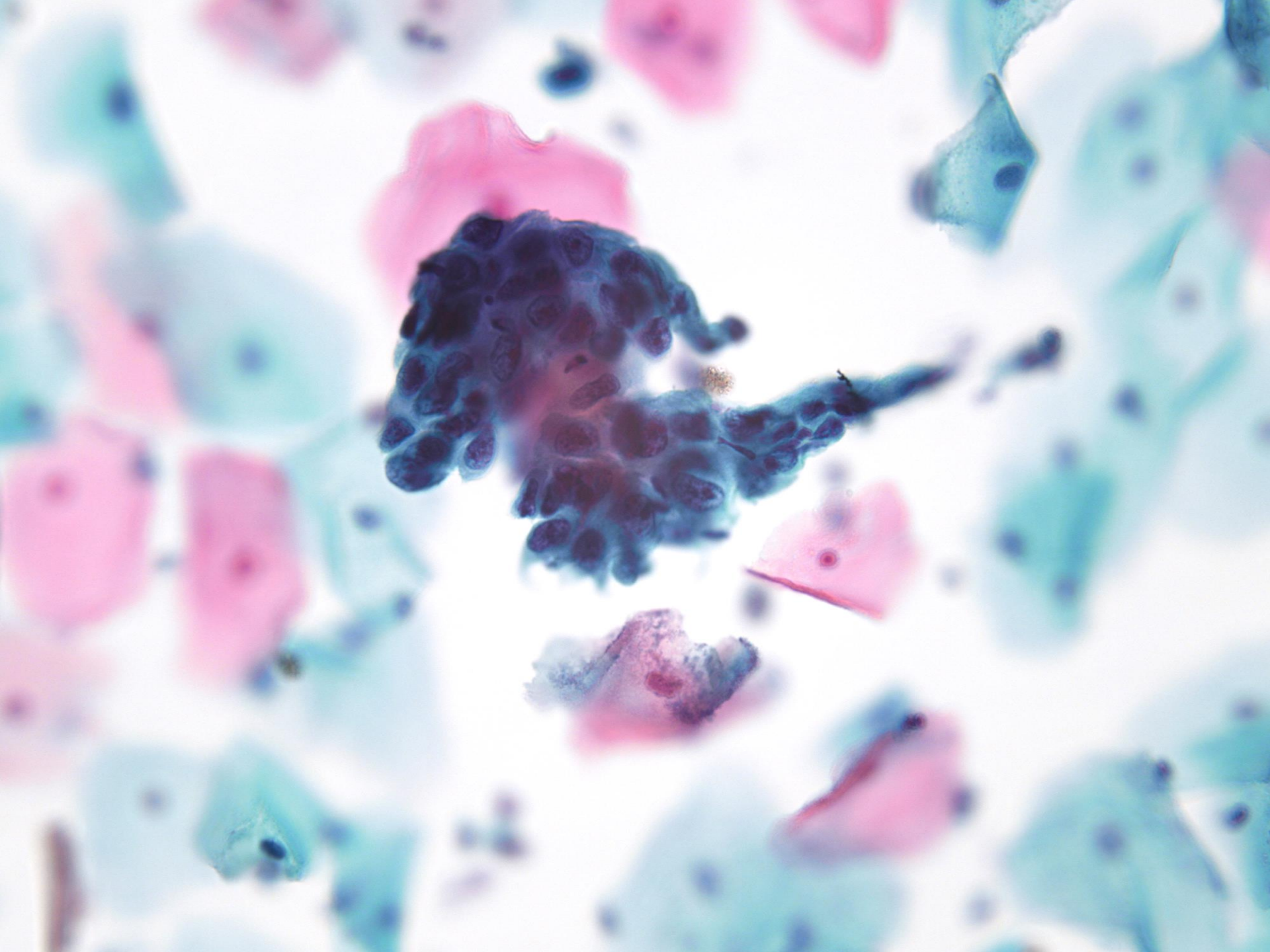


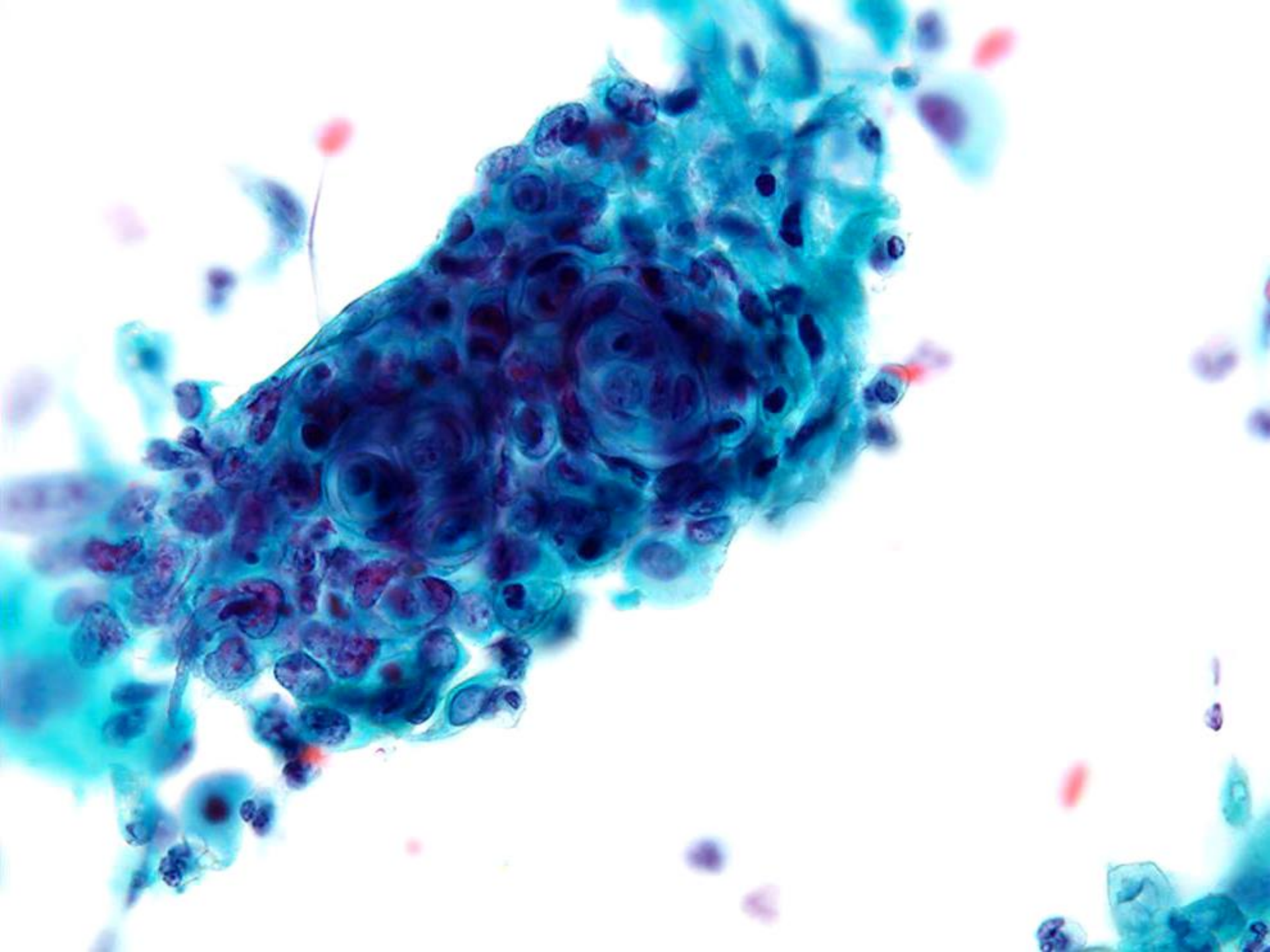


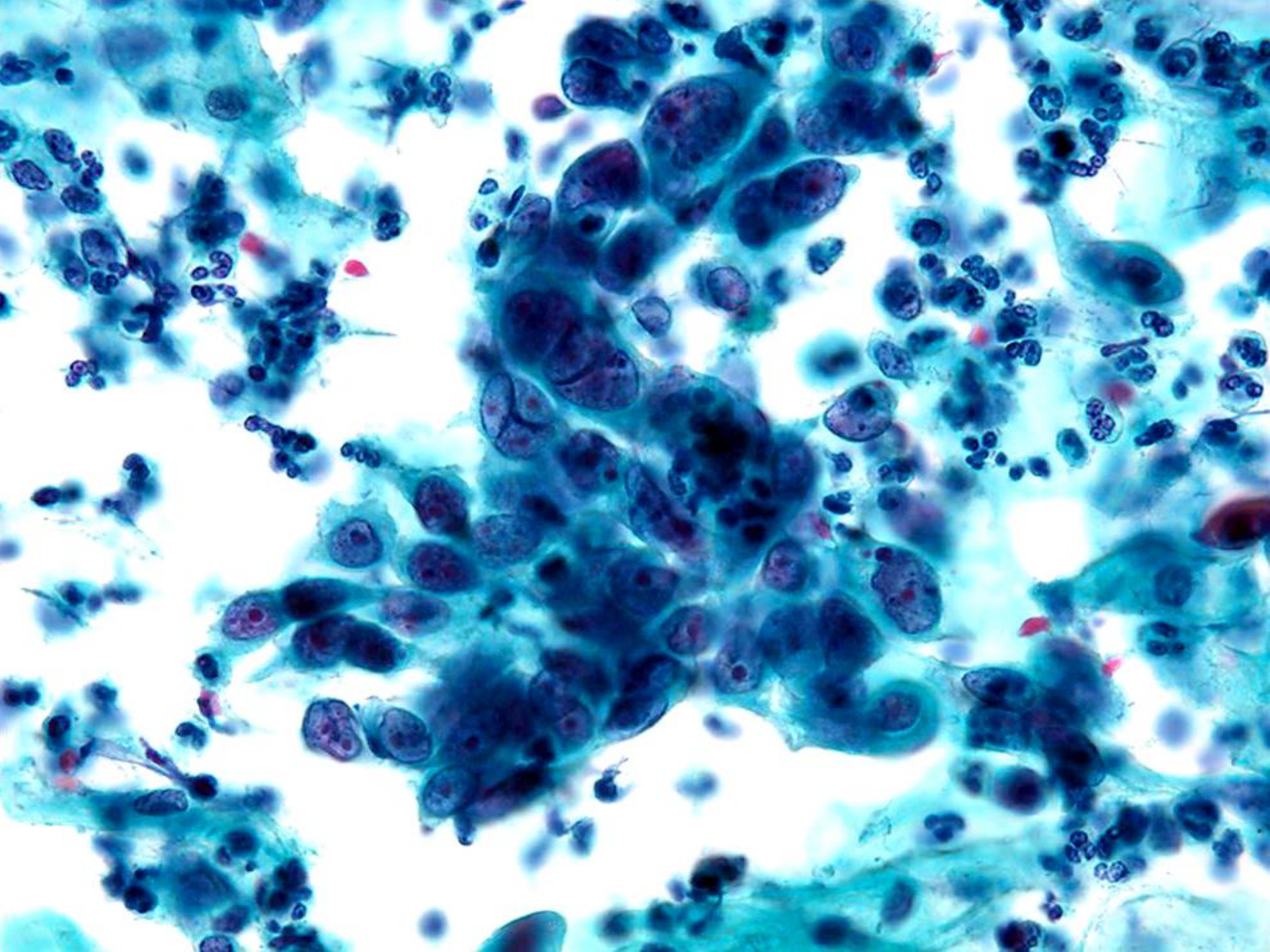
NON-KERATINIZING SQUAMOUS CELL CARCINOMA











Questions?