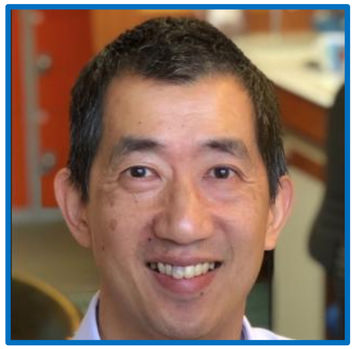
The British Association of
Gynaecological Pathologists

Lecturer – Dr Jason Wong



- Gynaecologic Pathologist at Norfolk and Norwich University Hospital, UK
- Past president of the BAGP
- Former organiser of the UK Gynaecological Pathology EQA scheme

The British Association of Gynaecological Pathologists

Basic Cervical Histopathology Course

- Normal histology and cut up issues for LLETZ/Cone biopsies
- Dr Jason Wong
- Norfolk and Norwich University Hospital, UK
- 4th February 2026

The British Association of Gynaecological Pathologists

Speaker disclosures

- ❑ I have no financial conflicts of interest to disclose

Public Health England

Guidance

Cervical Screening Programme: histopathology reporting handbook

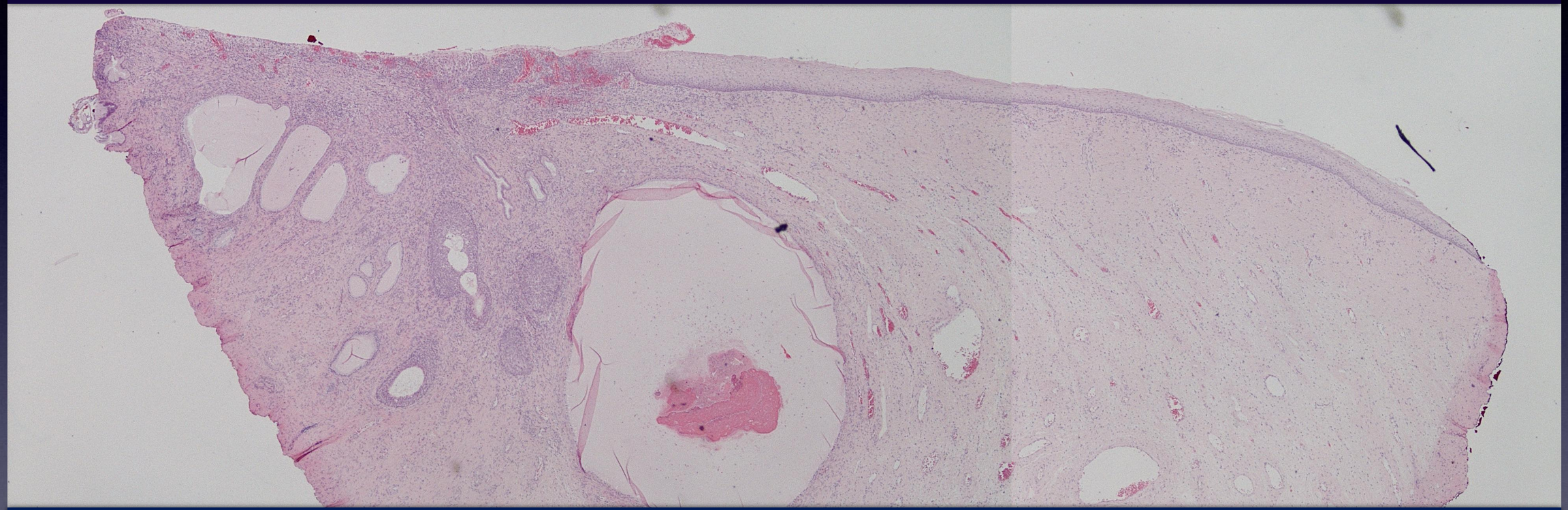
Updated 28 September 2021

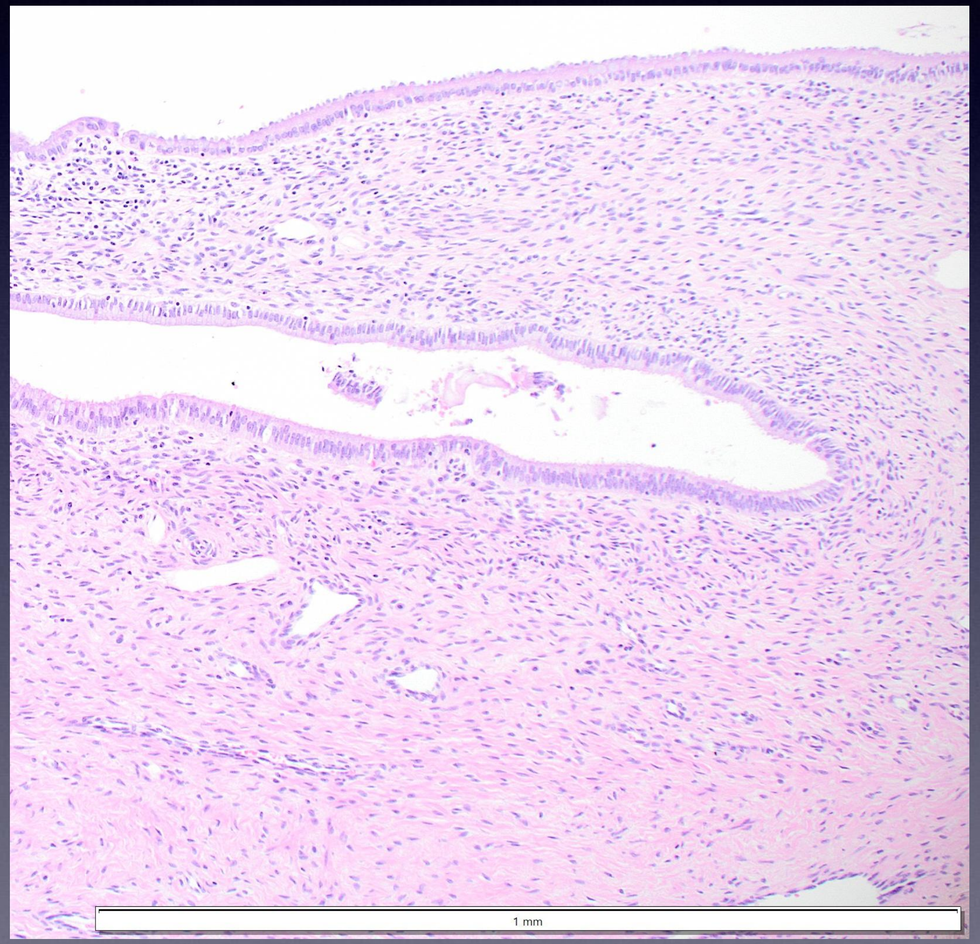
Biopsies

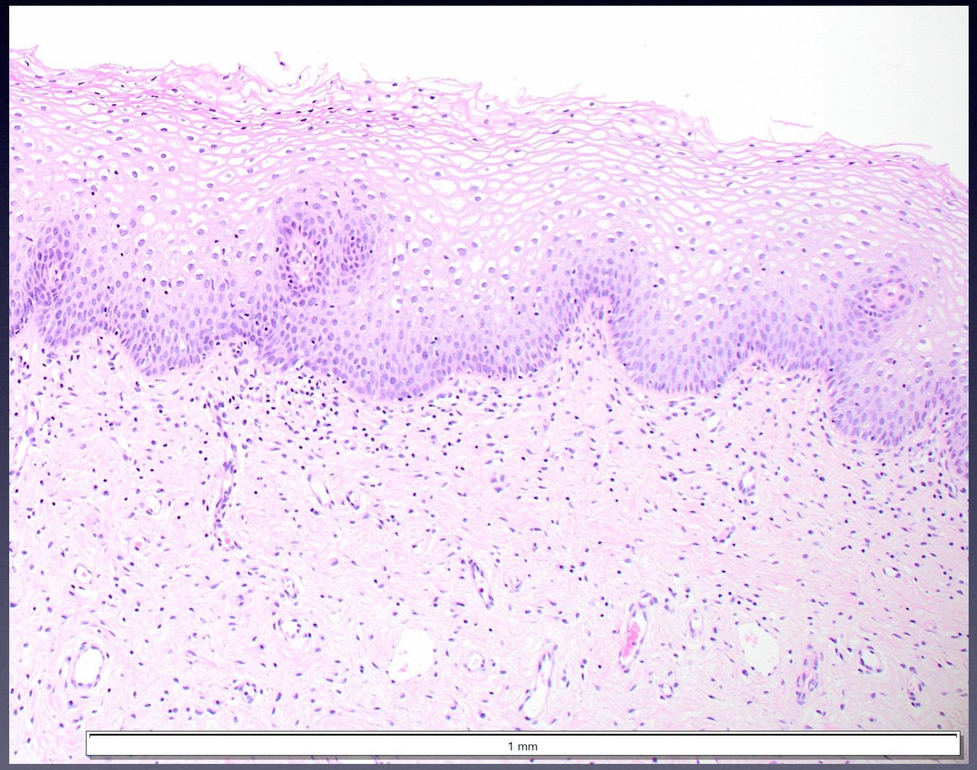
- Adequacy:
- To be called normal, a biopsy must be:
    - Technically adequate
    - Include epithelium of interest
    - >2mm

LLETZ

- How to recognise the transformation zone
- Other histological features
- How I cut up a LLETZ
- Why you might ink a LLETZ
- Reporting of margin status




1 mm


1 mm

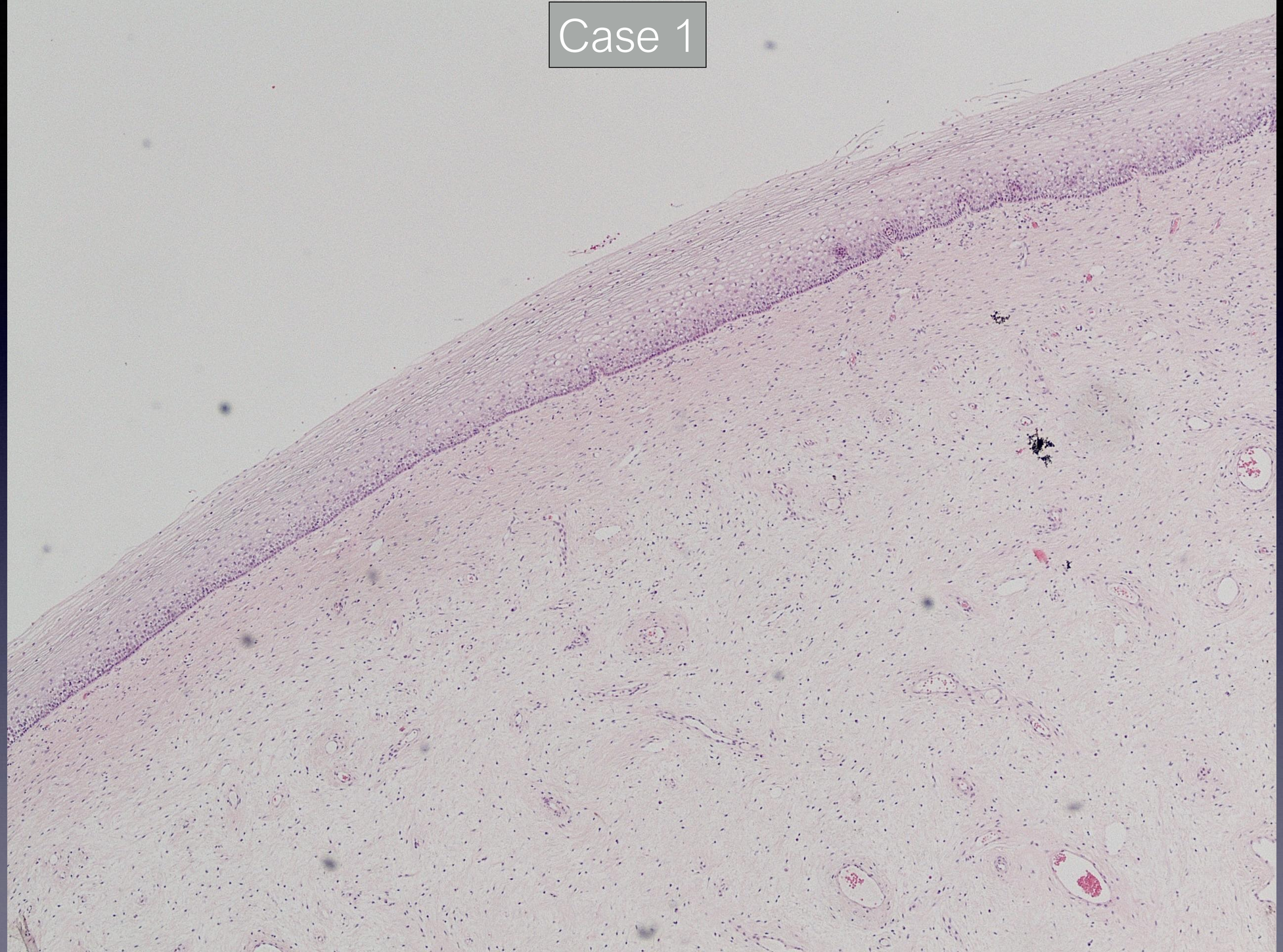
How do you recognise the Transformation Zone?

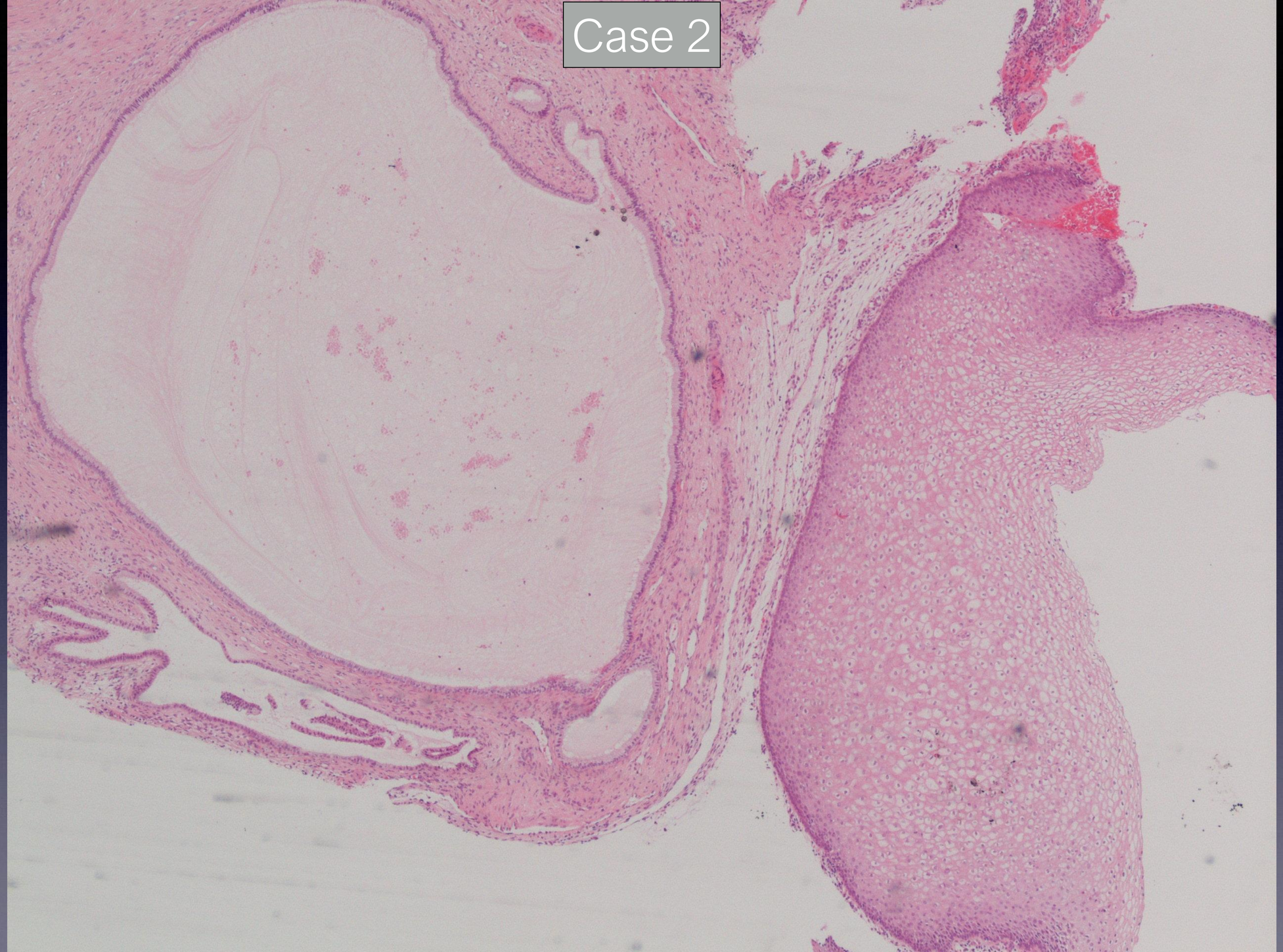
- “I have been reviewing cases for the colp MDT and I am finding a lot of variation in what is acceptable for reporting the presence of transformation zone”

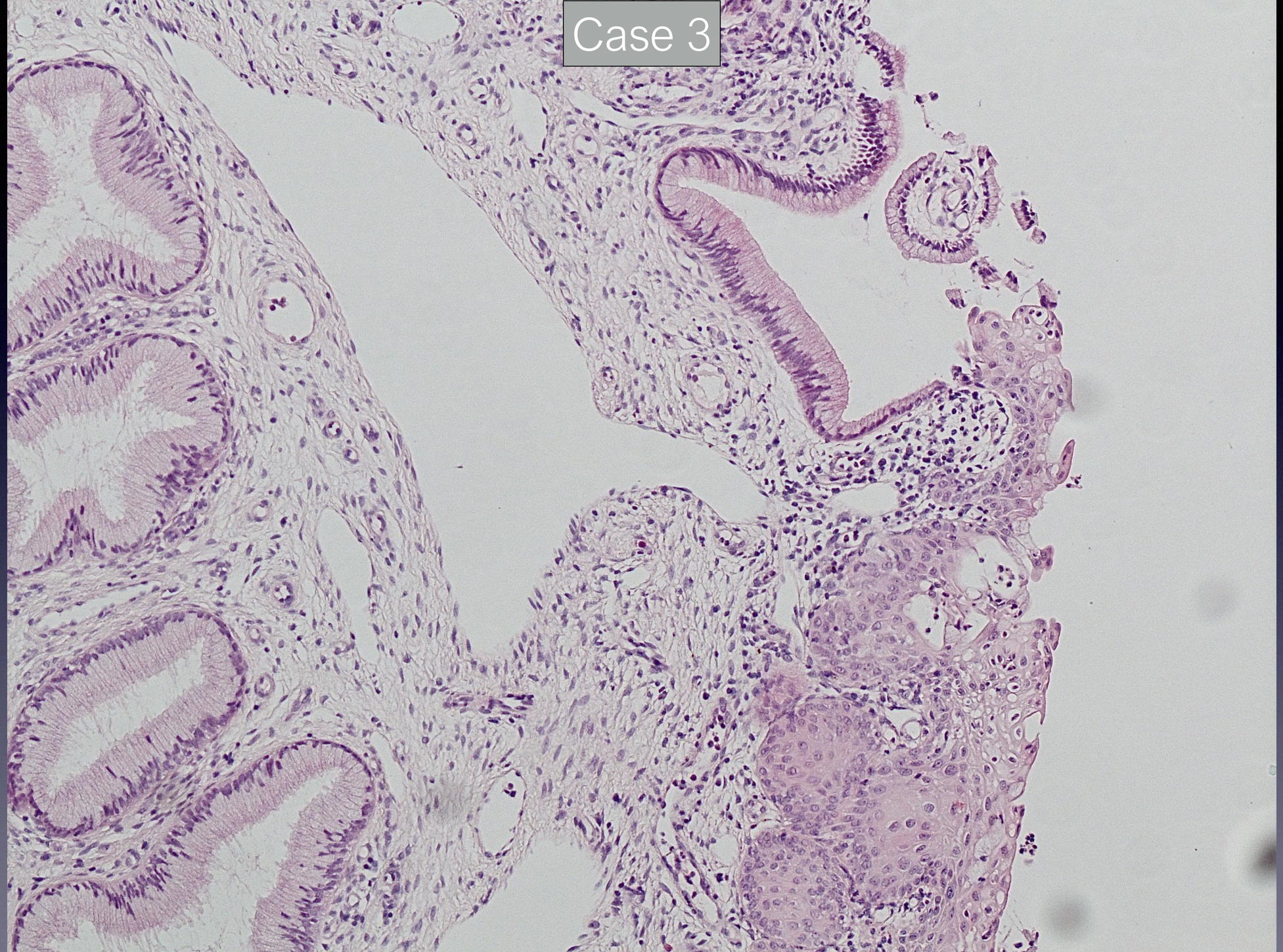
- Wouldn’t happen in my department, but it does

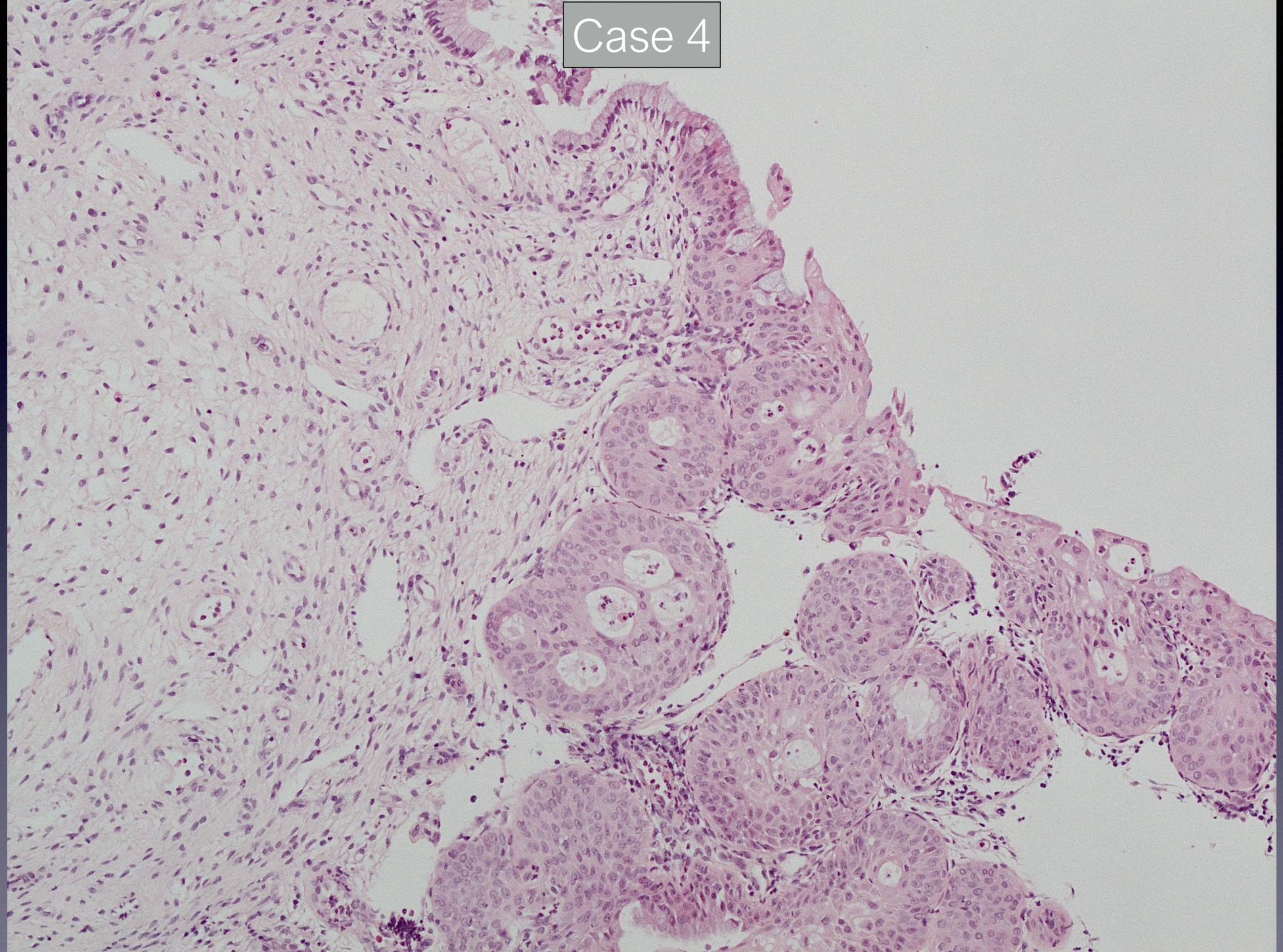
Data set items to be included	In loop excision reports	In cervical biopsy reports
Presence or absence of TZ	Yes	Yes

Case 1



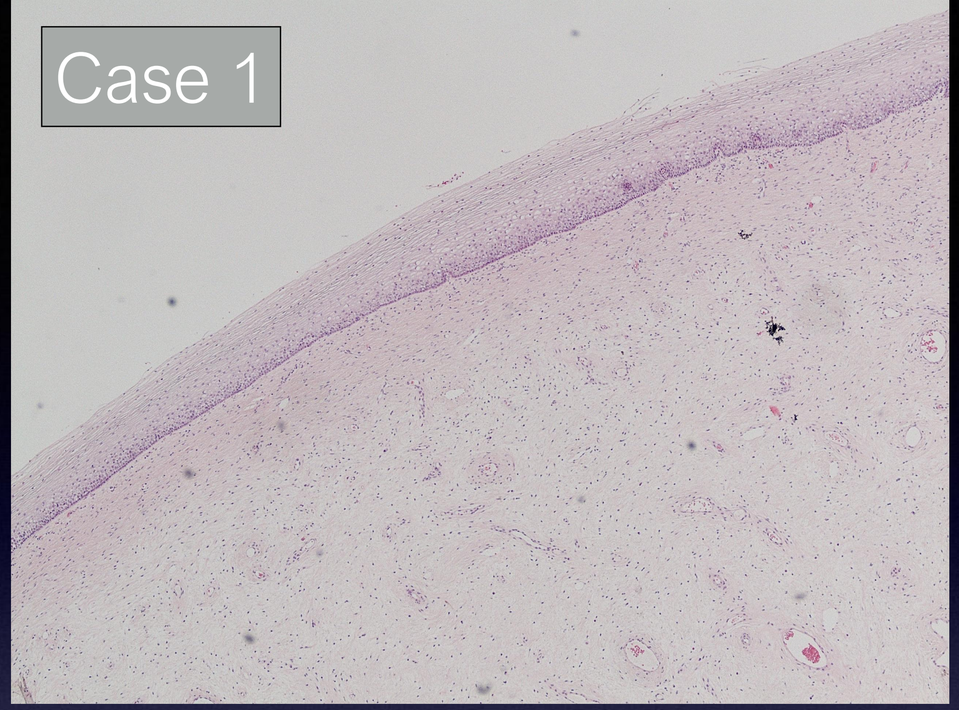

Case 2

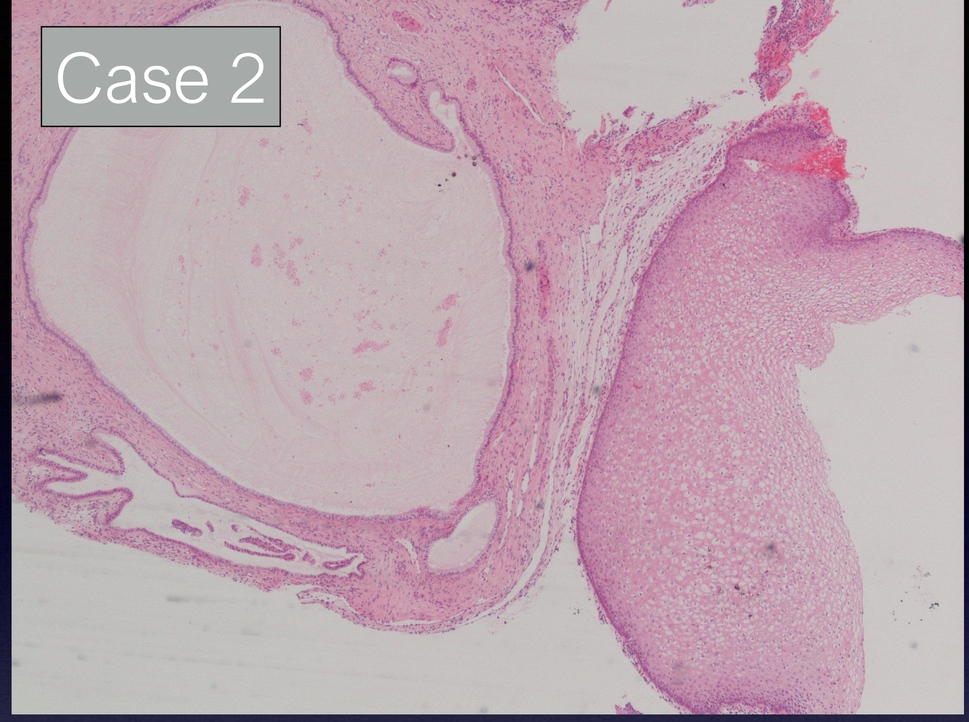

Case 3

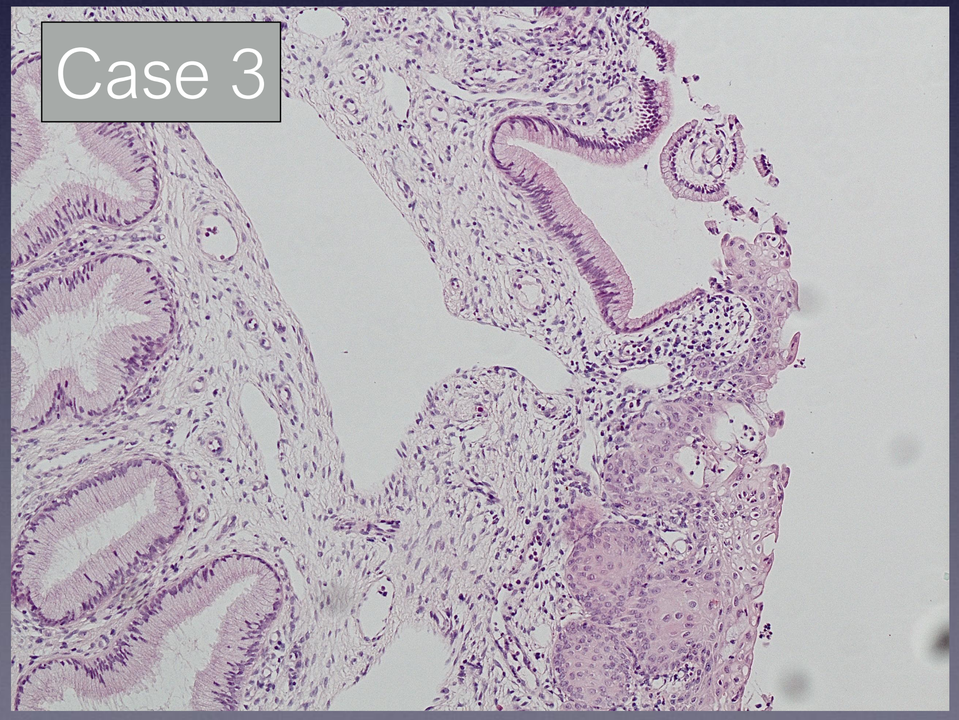

Case 4

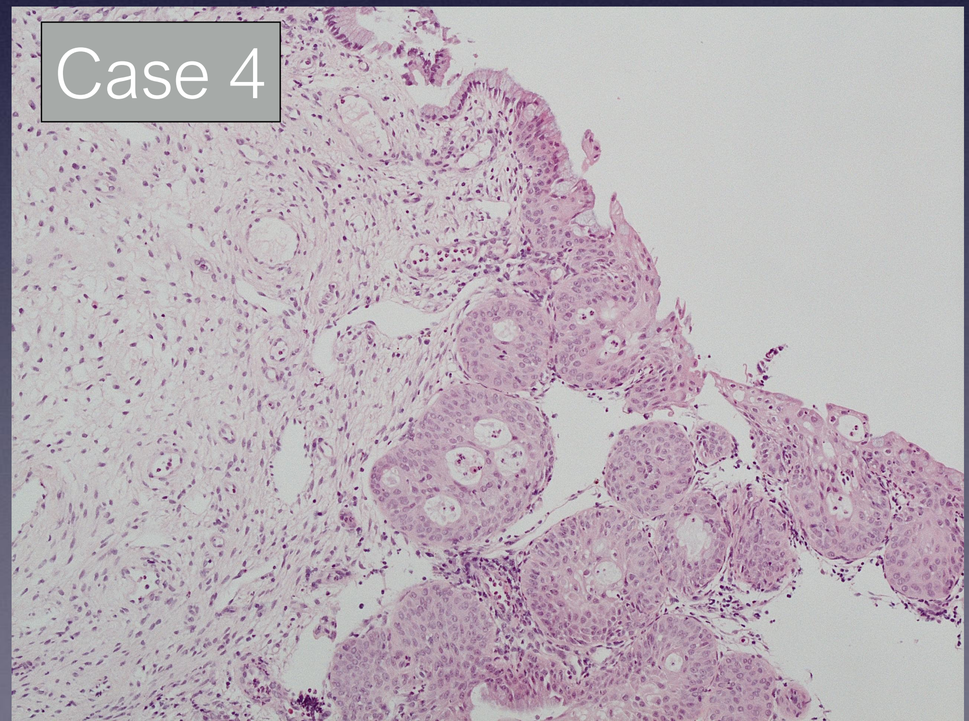
Poll 1

Which of these specimens contain the transformation zone?
(Check all that apply)


Case 1


Case 2


Case 3


Case 4

Audit of the histological definition of cervical transformation zone

P Mukonoweshuro, A Oriowolo, M Smith
Department of Histopathology, Level 4, Derriford Hospital, Plymouth PL6 8DH, UK; pinini@doctors.org.uk

J Clin Pathol 2005;**58**:670–672

(A) Surface squamous epithelium in continuity with surface columnar epithelium (squamo–columnar junction) only.

(B) Surface squamous epithelium with surface columnar epithelium or stromal gland/crypt, or both.

(C) Surface squamous epithelium only.

(D) Surface columnar epithelium only.

(E) Surface columnar epithelium with squamous (metaplastic) epithelium in gland/crypt.

Table 1 Questionnaire results

Option/s	Responses	%
A	13	15.9
B	46	56.1
C	0	0
D	0	0
E	2	2.4
All	1	1.2
None	5	6.1
Combinations*	15	18.3
Total	82	100

*See table 2.

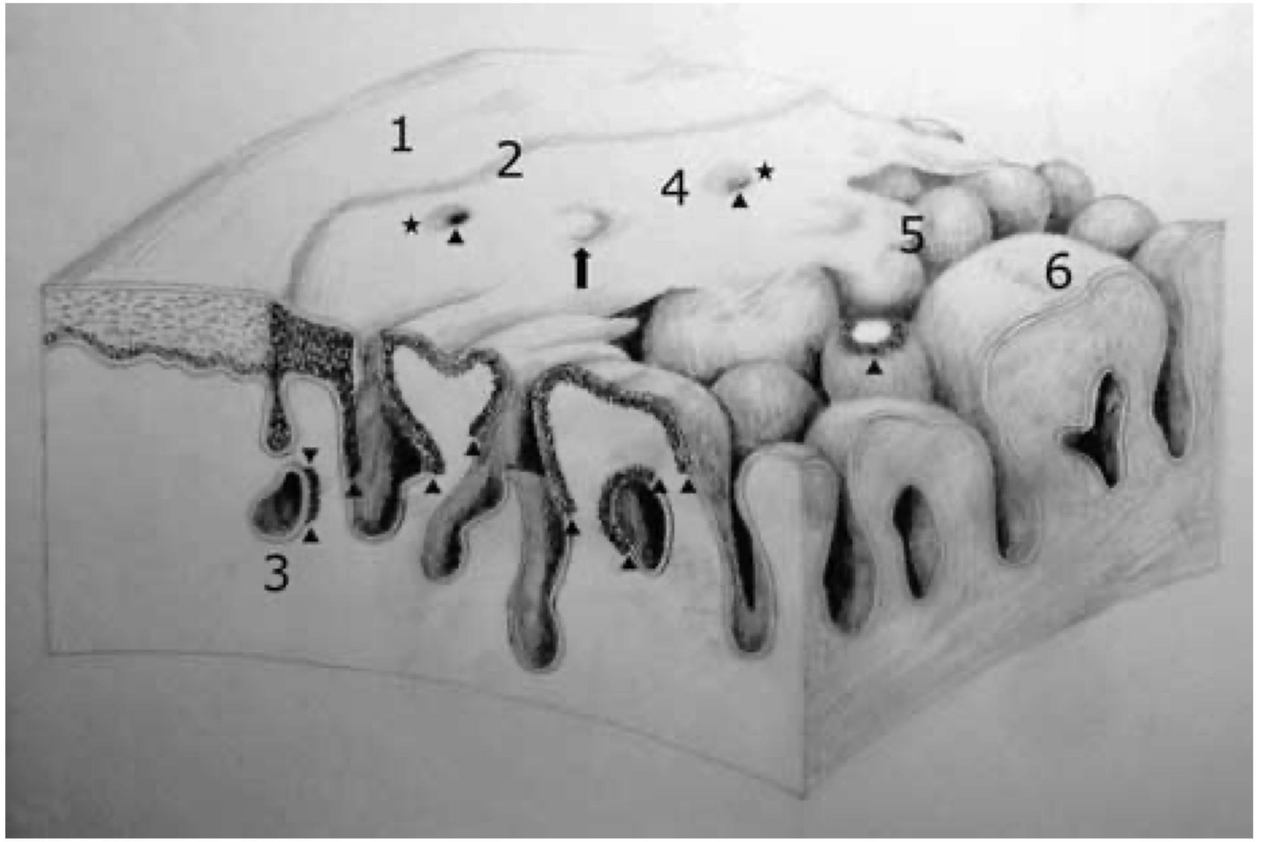


FIG. 1. Schematic illustration of the human cervix with types of epithelium, transformation zone, original, and new squamocolumnar junction (SCJ). The original squamous epithelium (1) is a

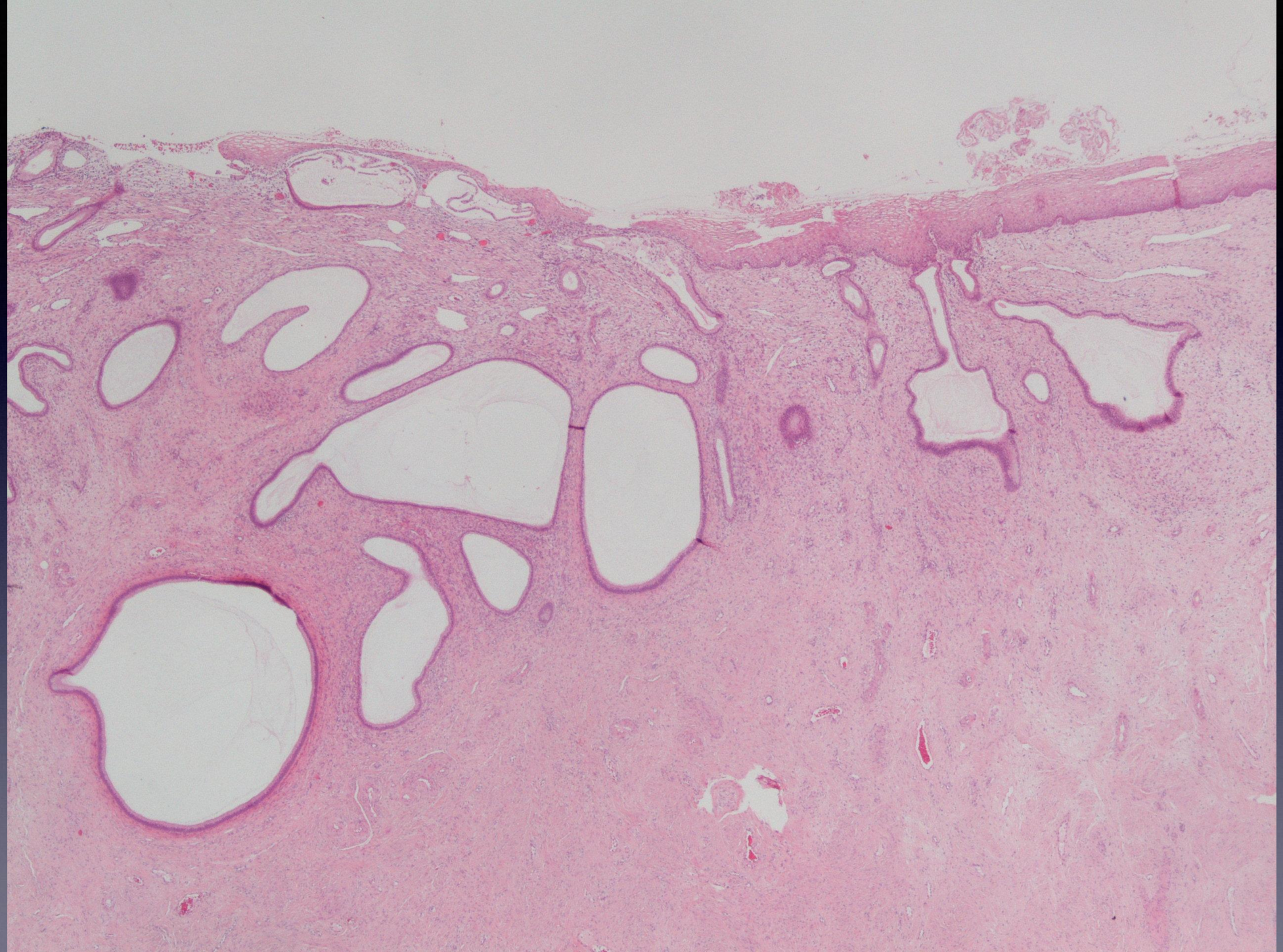
International Journal of Gynecological Pathology
00:1–6, Lippincott Williams & Wilkins, Baltimore
Copyright © 2017 by the International Society of Gynecological Pathologists

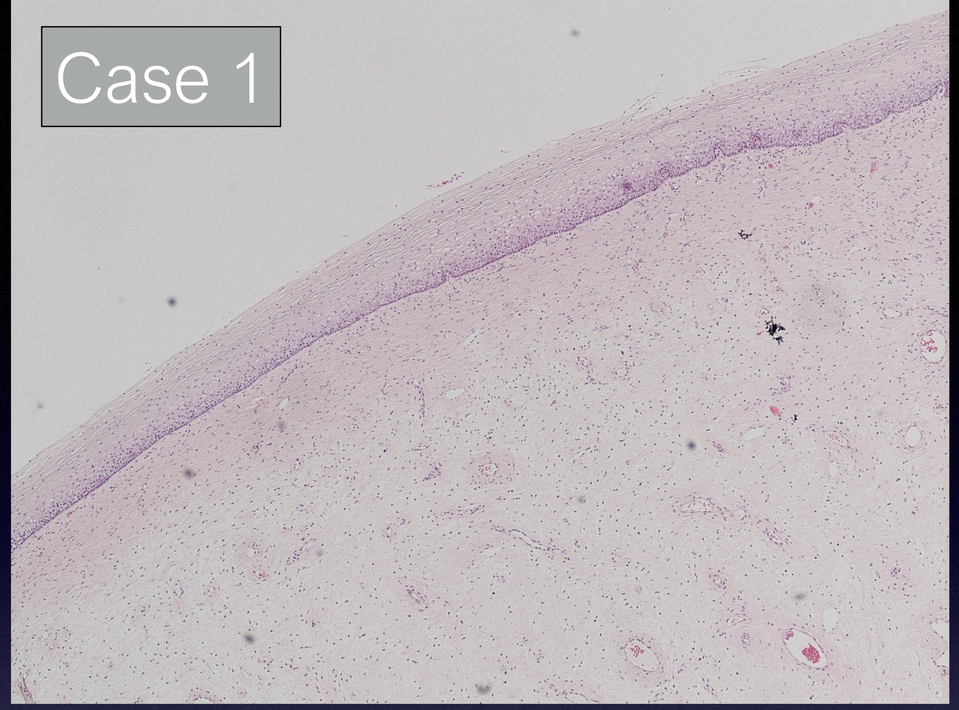
Original Article

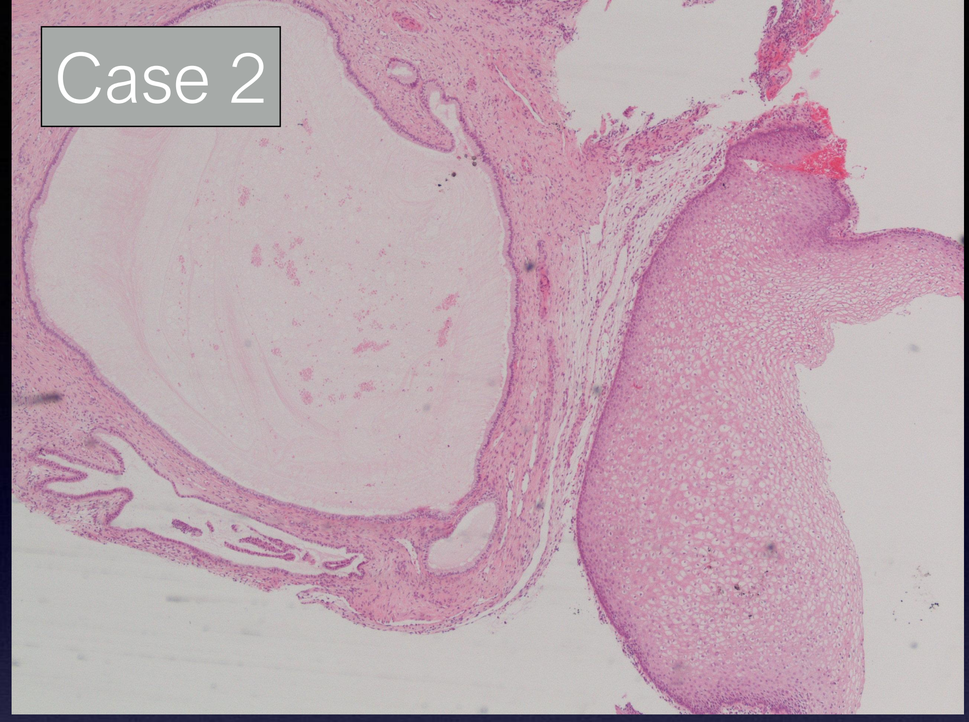
Defining the Cervical Transformation Zone and Squamocolumnar Junction: Can We Reach a Common Colposcopic and Histologic Definition?

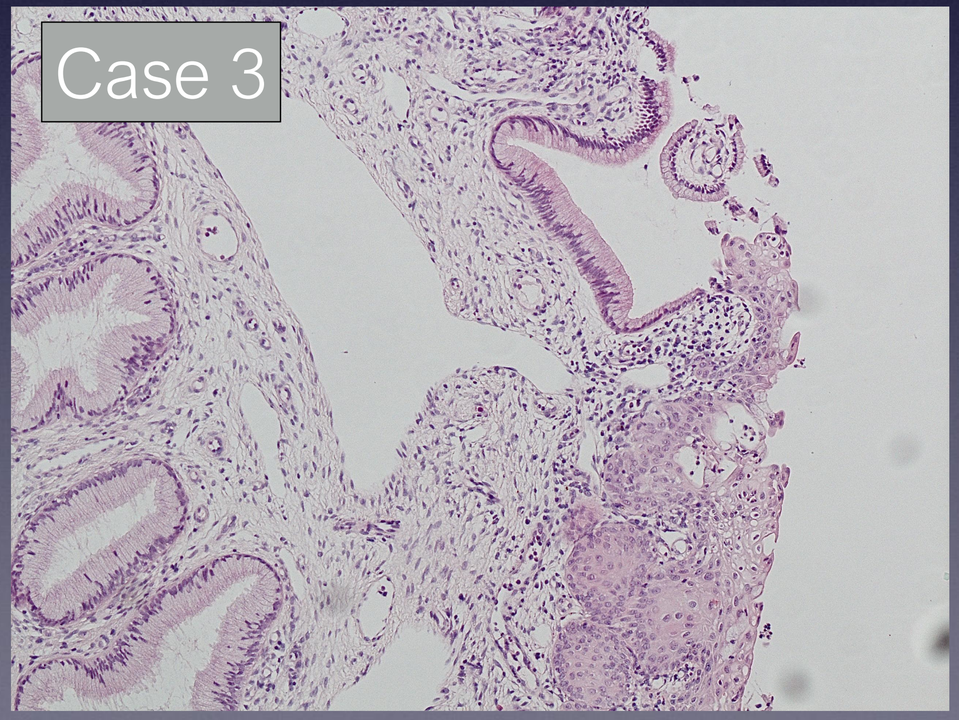
Olaf Reich, M.D., Sigrid Regauer, M.D., W.G. McCluggage, M.D., Christine Bergeron, M.D., and Charles Redman, M.D.

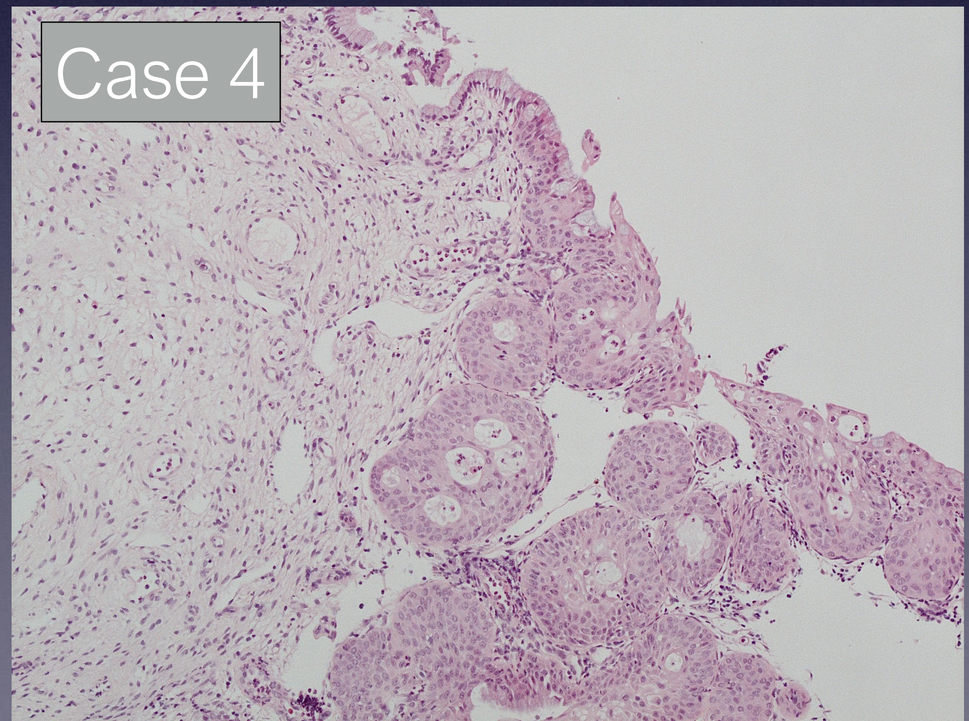
Definition	Agreed [n (%)]
The TZ is where squamous metaplasia occurs. It extends from the original nonkeratinizing squamous epithelium of the ectocervix to the mucin-producing columnar epithelium of the endocervix. The columnar epithelium underneath the metaplastic epithelium is part of the TZ	11 (32)
The TZ is where squamous metaplasia occurs. It extends from the original nonkeratinizing squamous epithelium to the mucin-producing columnar epithelium of the cervix. The columnar epithelium underneath the metaplastic epithelium is *not* part of the TZ	10 (29)
The TZ is the zone in which transformation *will potentially* occur. It is characterized by the presence of metaplastic squamous epithelium, which may extend not only across the ectocervix but also to within the cervical canal (10)	3 (9)
The TZ is the zone between the original and current SCJ and the area around that junction where the epithelium is thinnest (3)	1 (3)
The TZ consists of surface squamous epithelium in continuity with surface columnar epithelium (SCJ) (11)	1 (3)




Case 1


Case 2

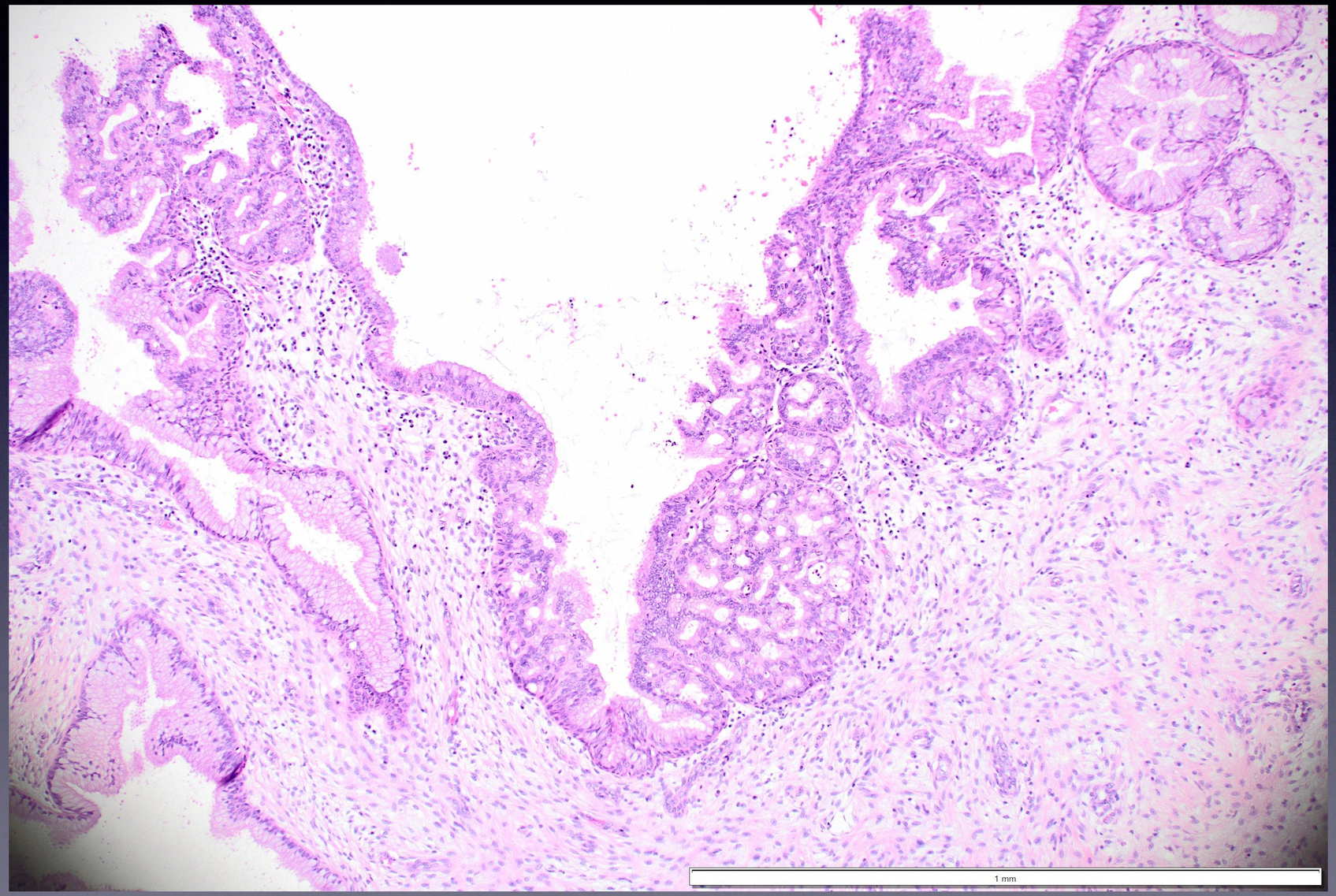

Case 3


Case 4

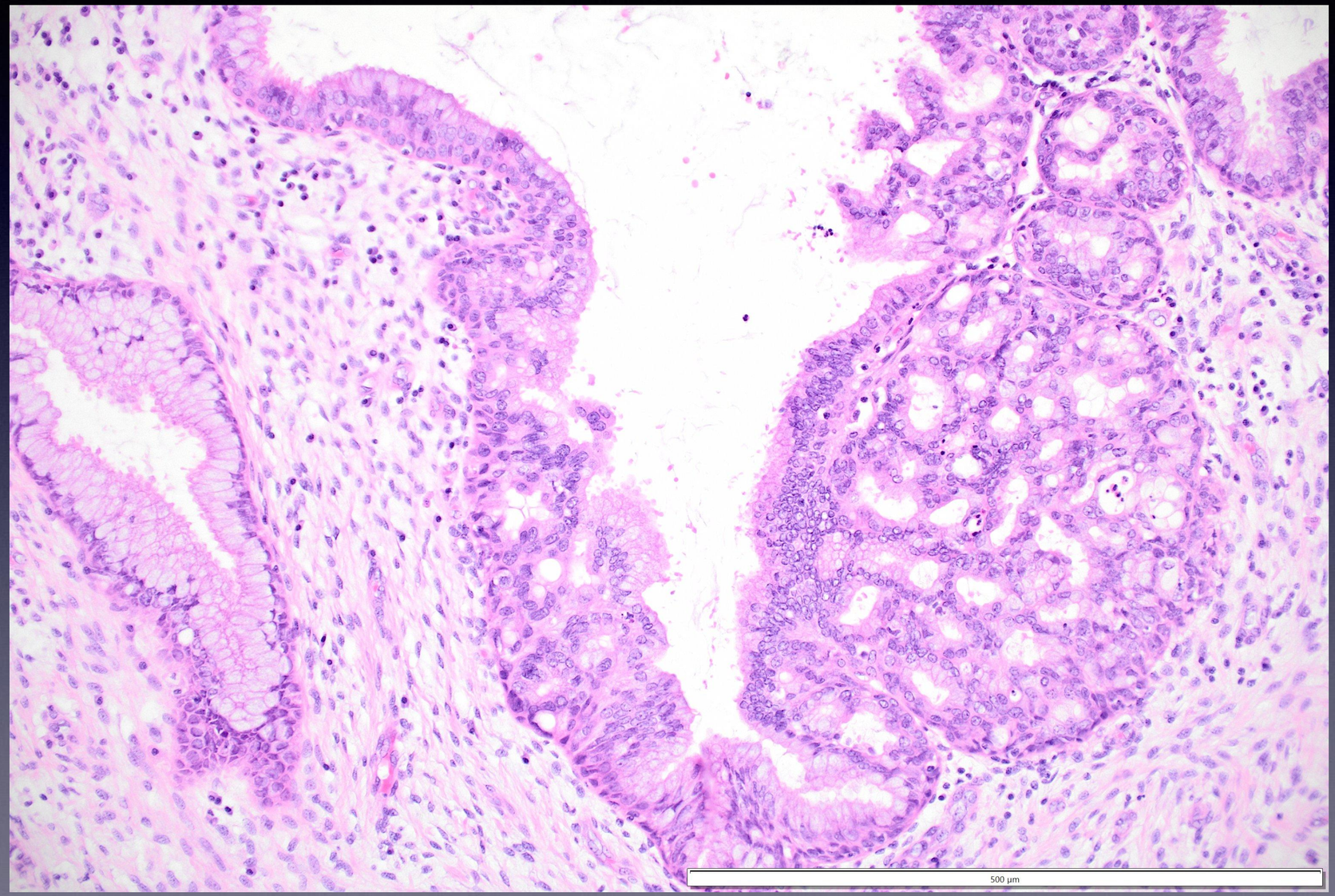
LLETZ

- How to recognise the transformation zone
- Other histological features
  - Microglandular hyperplasia
  - Mesonephric remnants
  - Ectopic decidua
- How I cut up a LLETZ
- Why you might ink a LLETZ
- Reporting of margin status

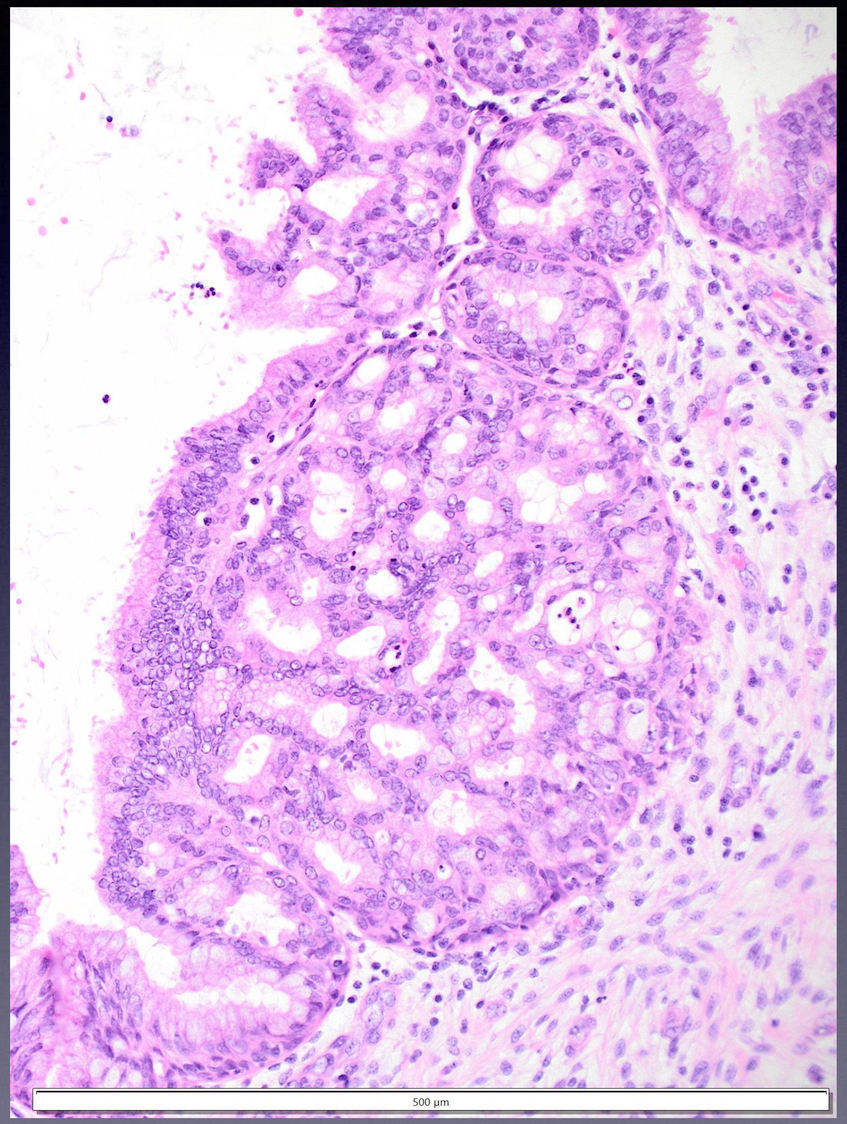
Microglandular hyperplasia

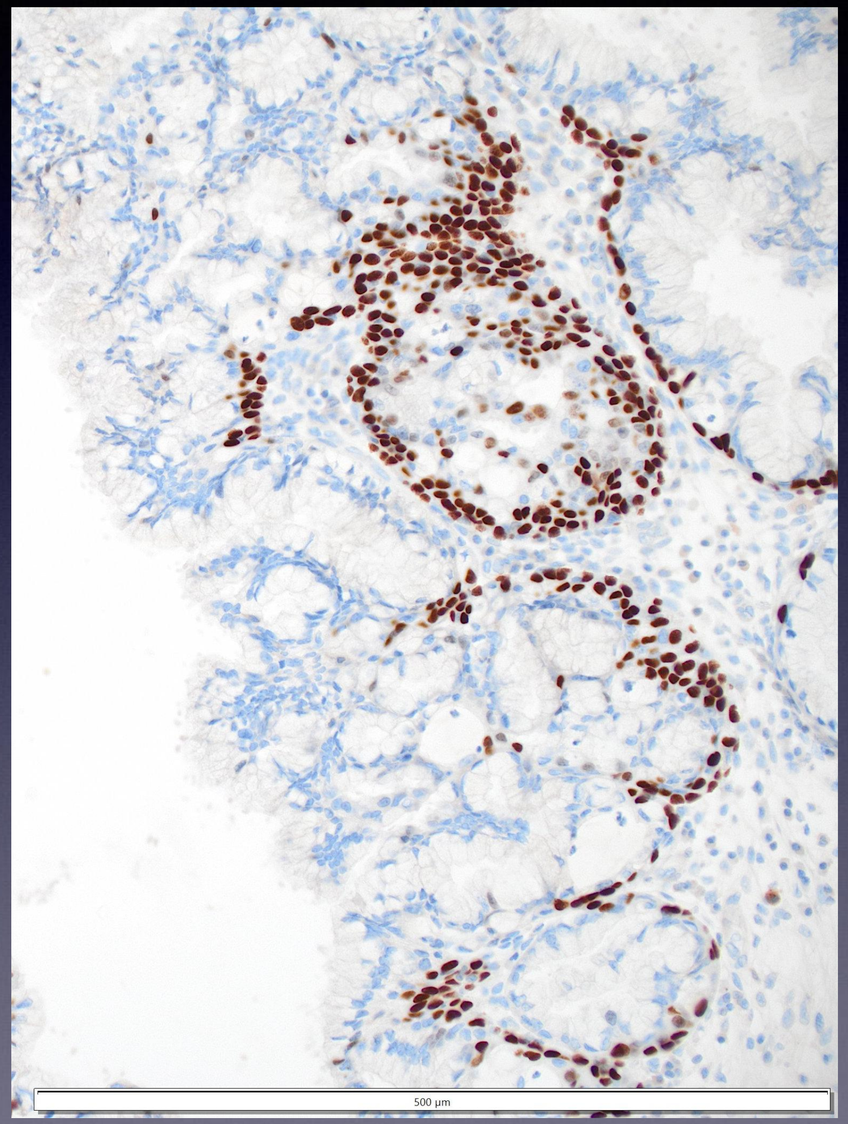


Microglandular hyperplasia

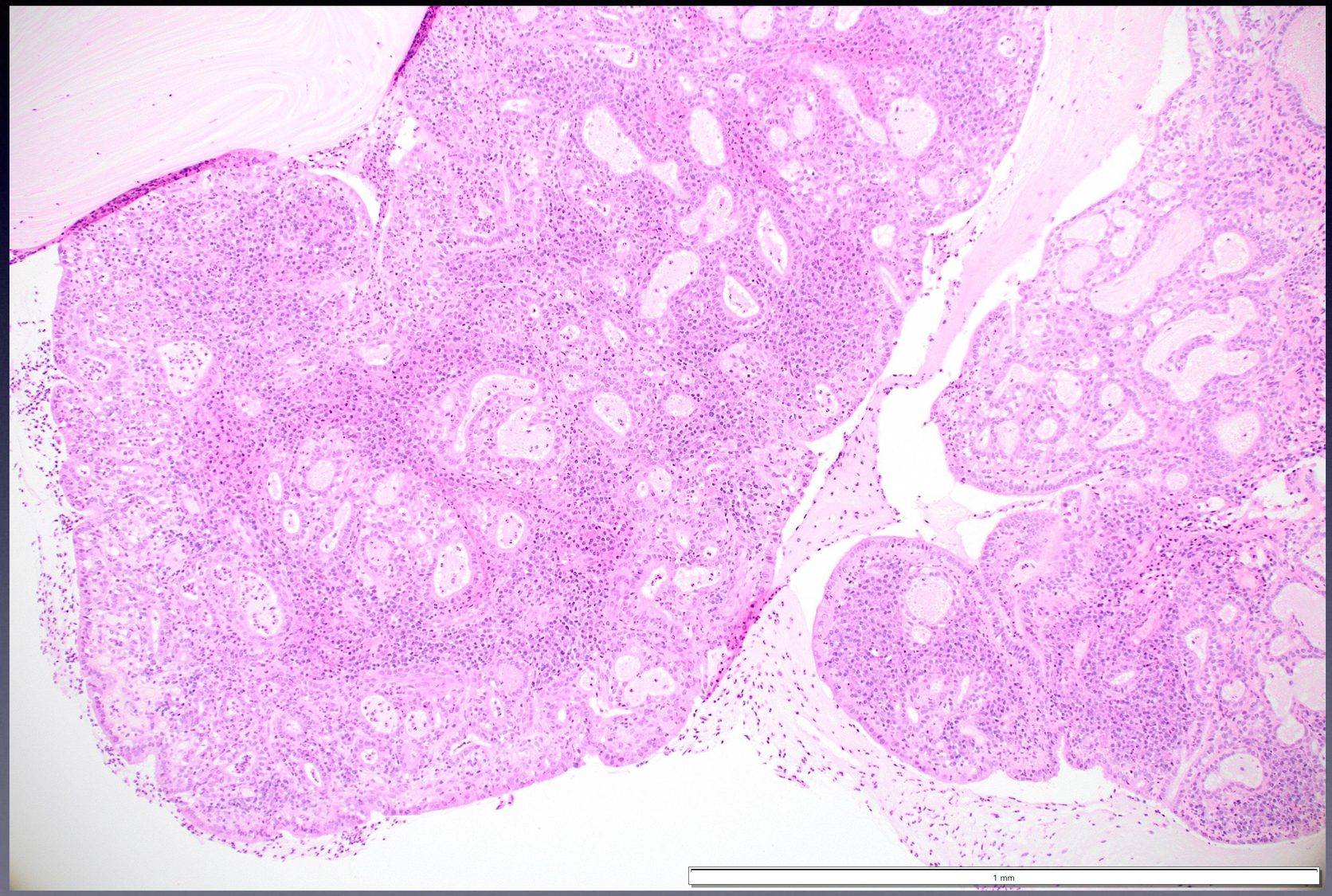


Microglandular hyperplasia

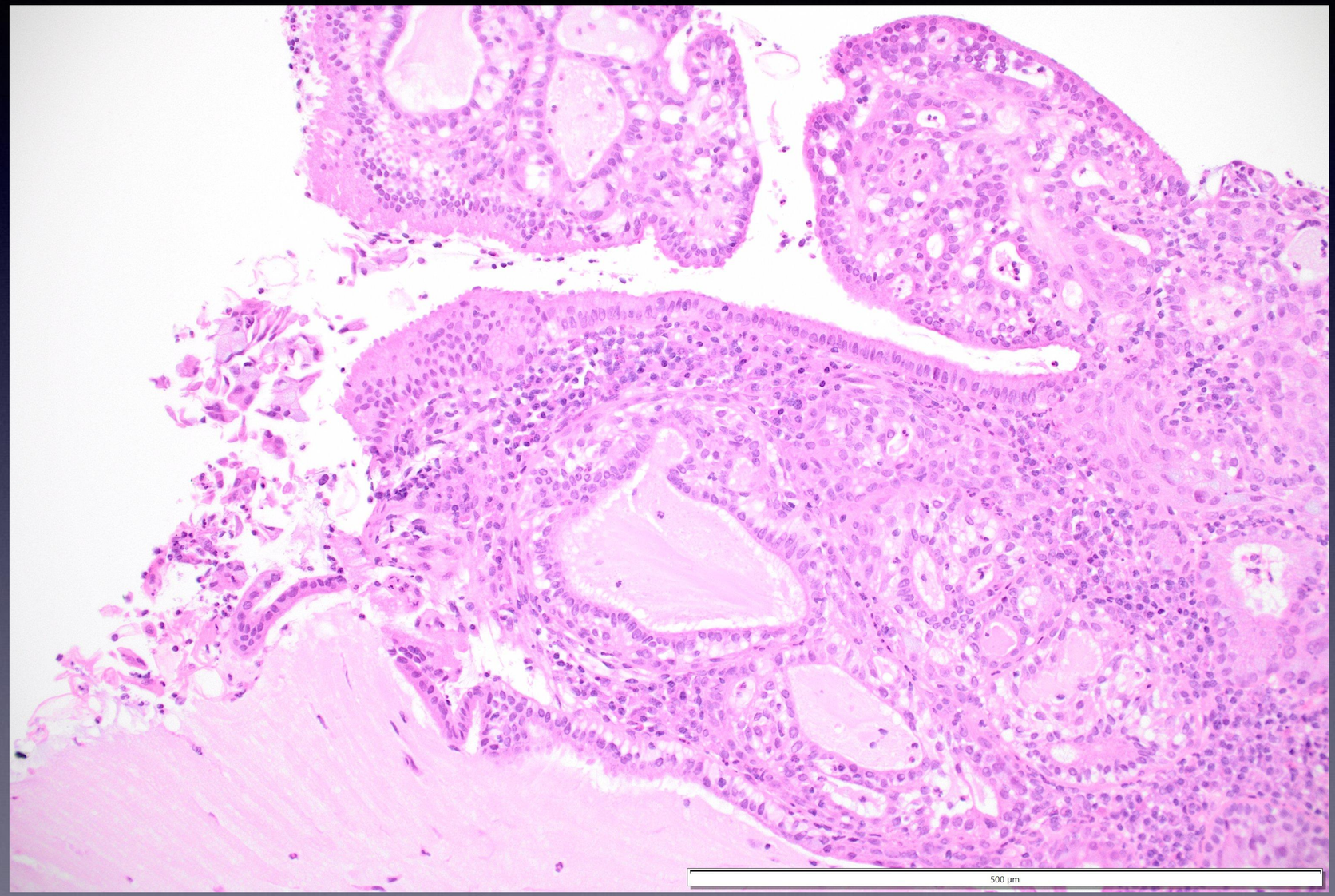




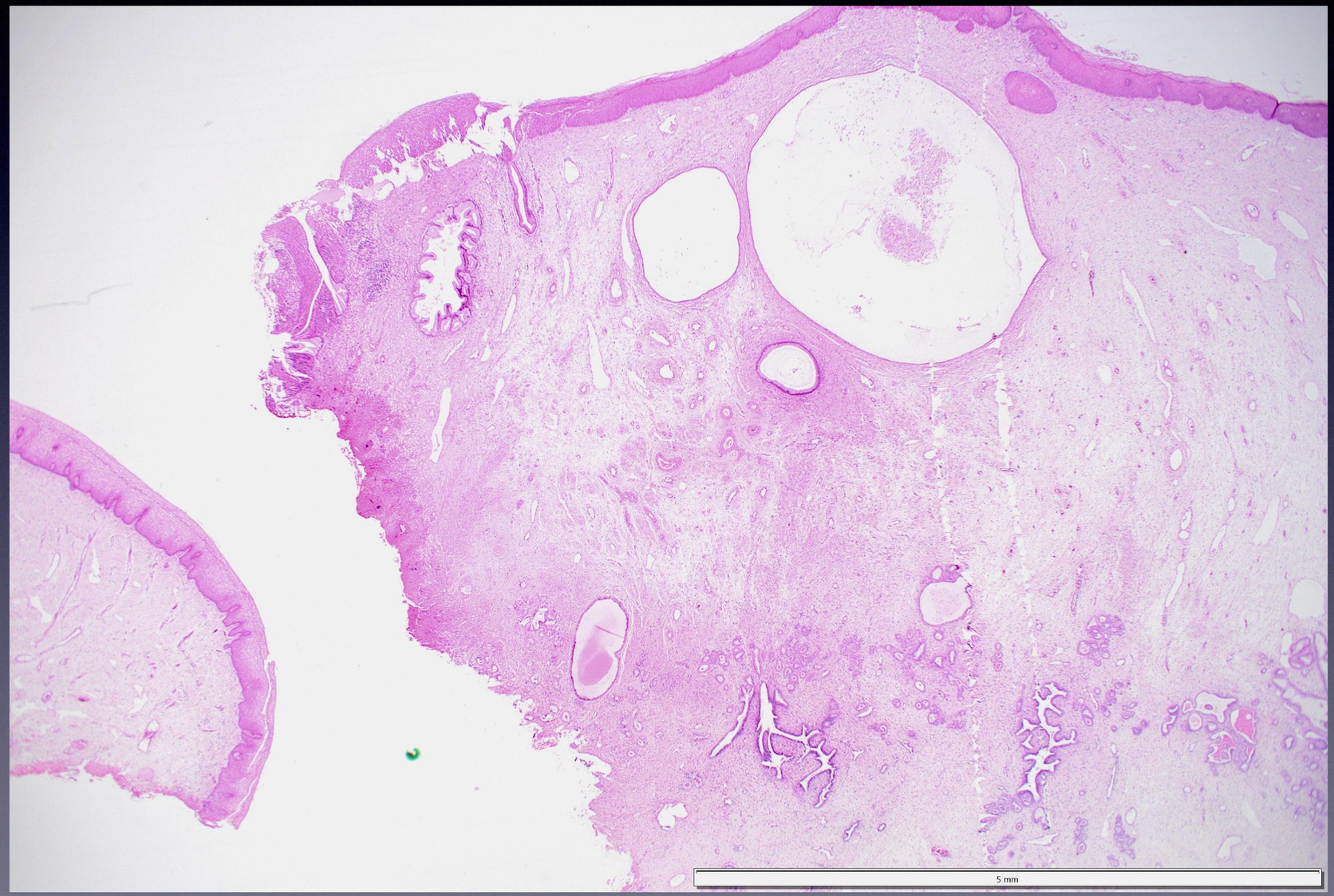
Microglandular hyperplasia



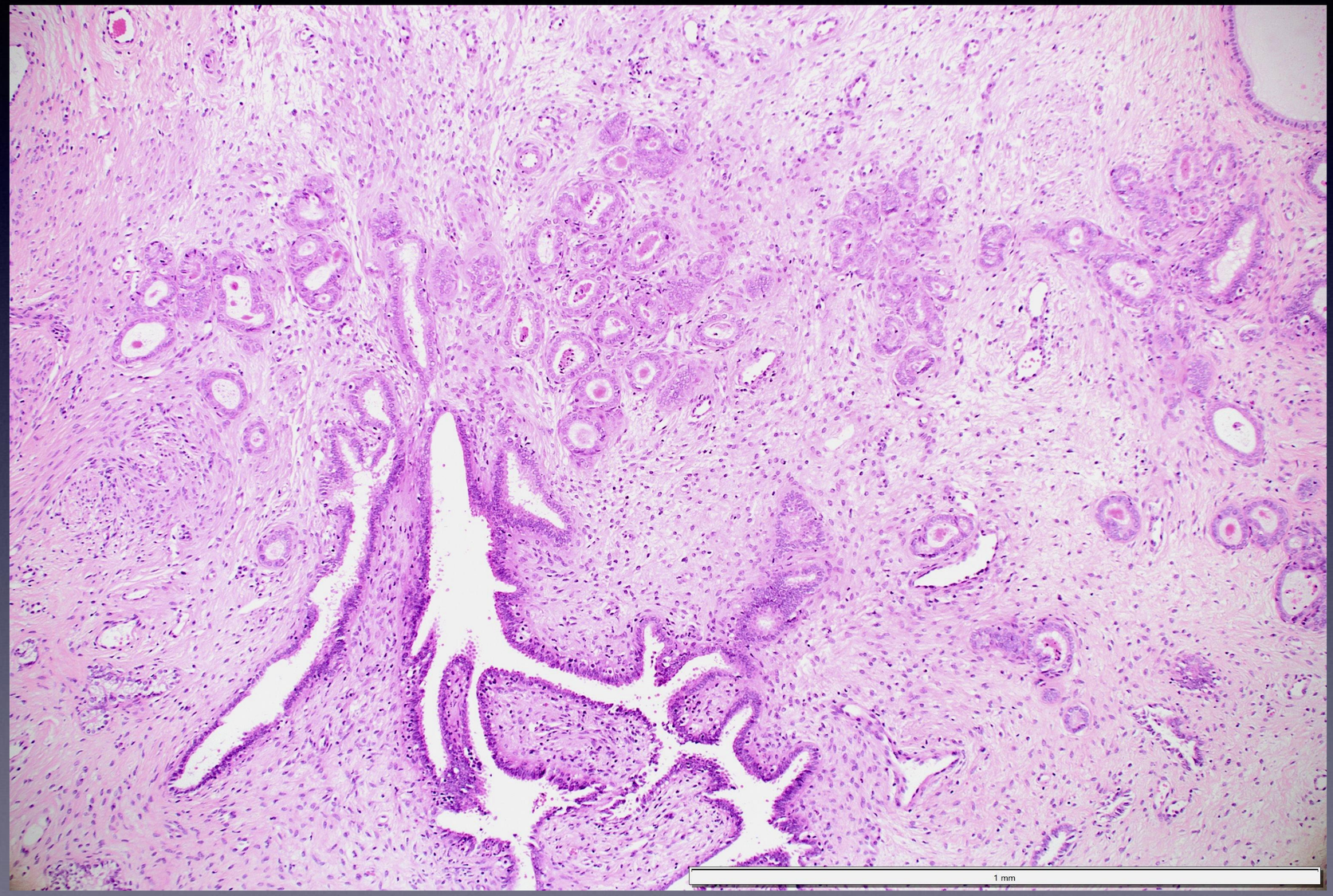
Microglandular hyperplasia



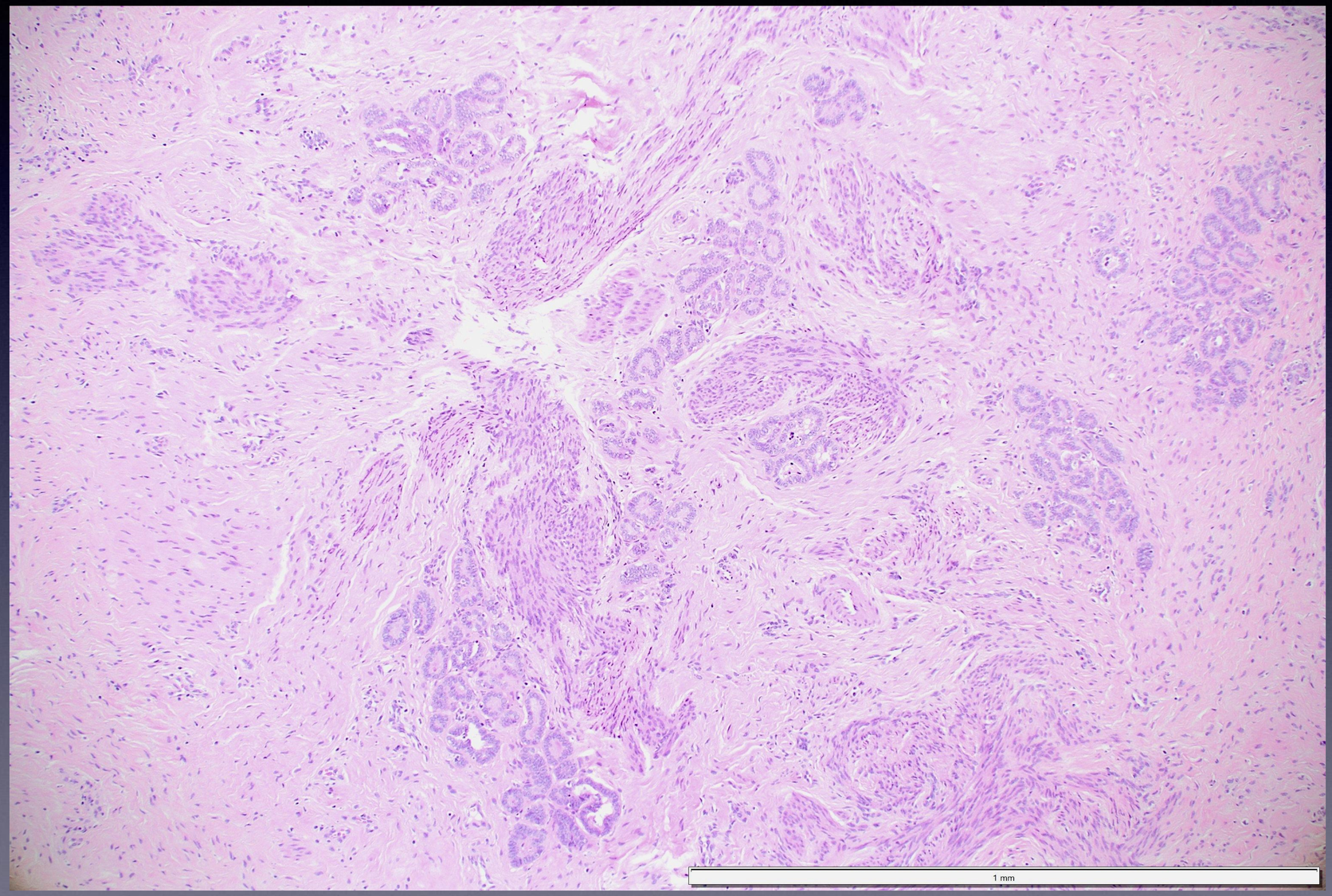
Mesonephric remnants



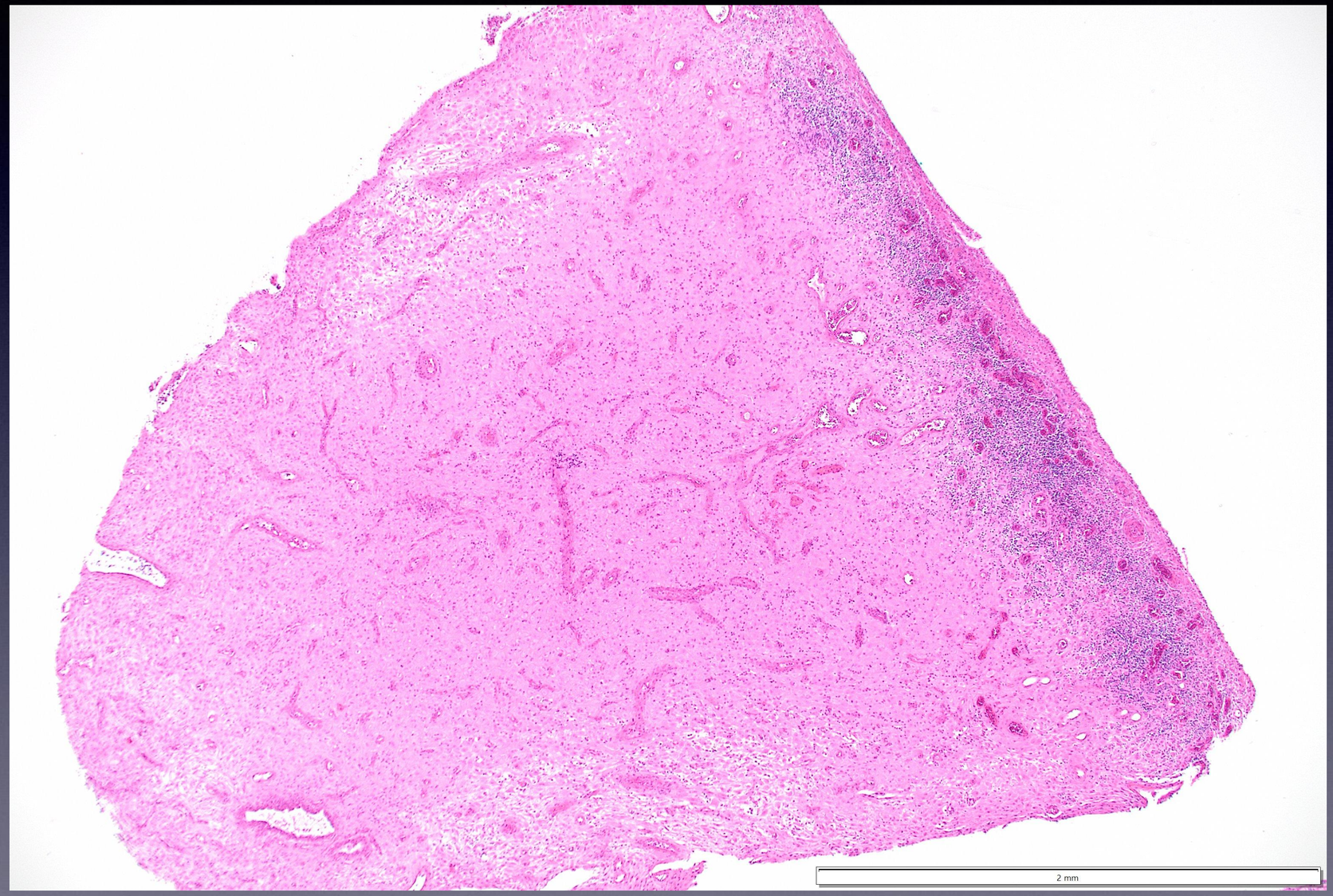
Mesonephric remnants



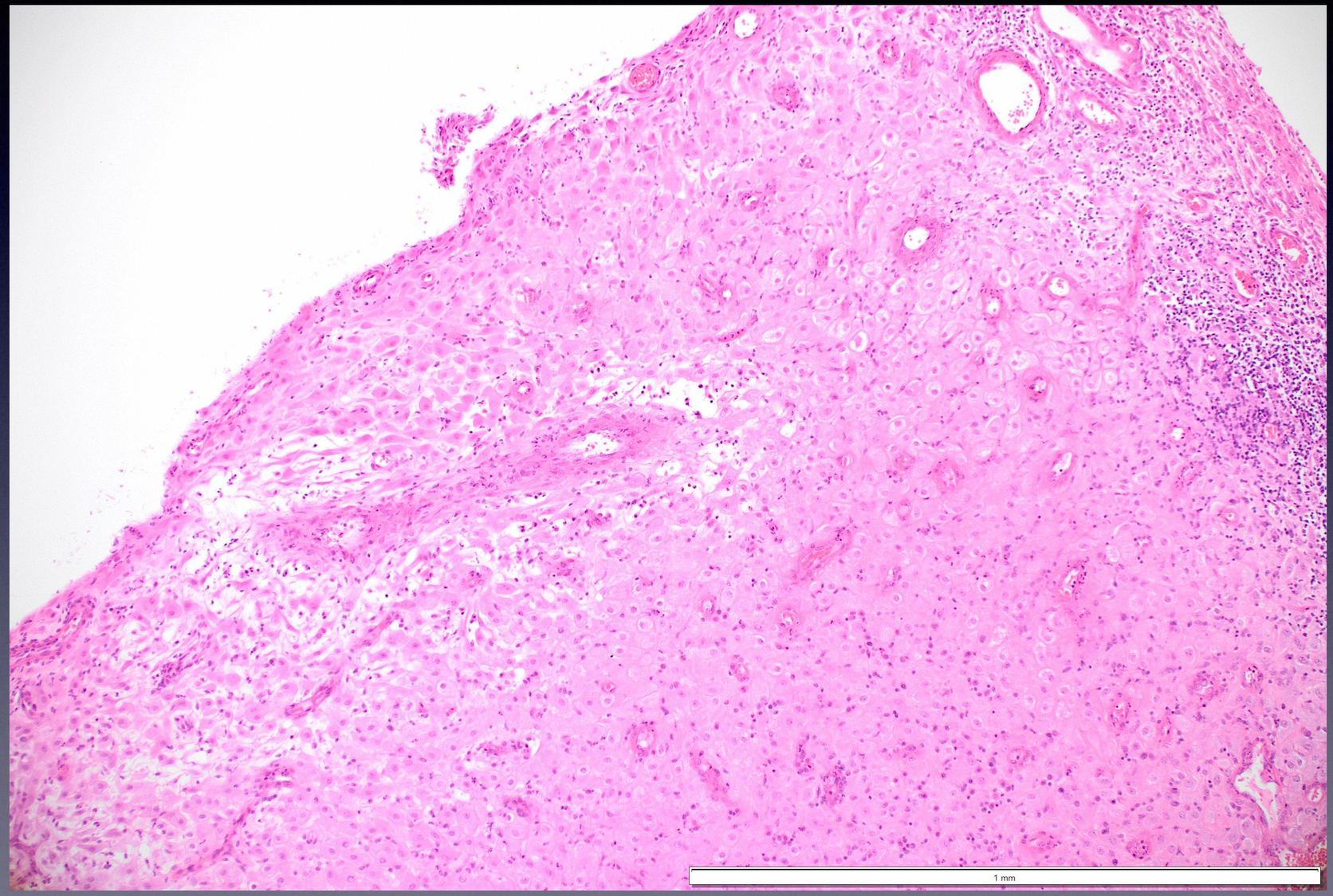
Mesonephric remnants



Ectopic decidua



Ectopic decidua



LLETZ

- How to recognise the transformation zone
- Other histological features
- How I cut up a LLETZ
- Why you might ink a LLETZ
- Reporting of margin status

Poll 2

Breadslice

Which of these techniques do you use to cut up LLETZ specimens?
(Check all that apply)

Breadslice
Breadslice with cruciate of ends
Radial
Other

Poll 3

Breadslice

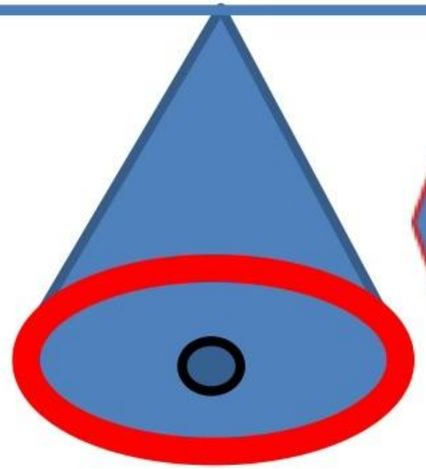
Do you varying the technique depending on the patient’s age?

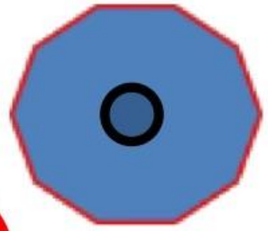
Yes
No

TRIMMING LLETZ SPECIMENS – AGED 49 YEARS OR LESS

STEP 1

INK THE ECTOCERVICAL MARGIN – LIPSTICK RED

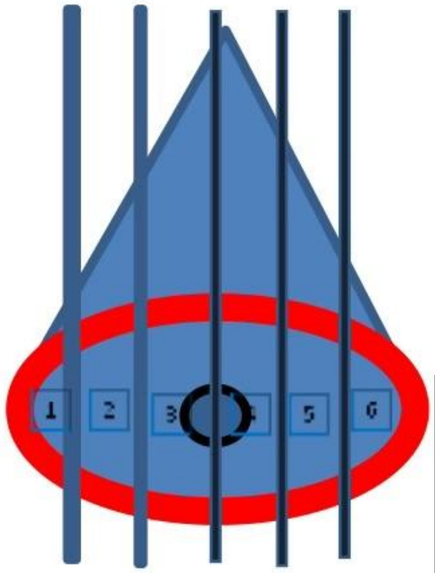




END ON VIEW

STEP 2

SLICE AT 2- 3 MM INTERVALS



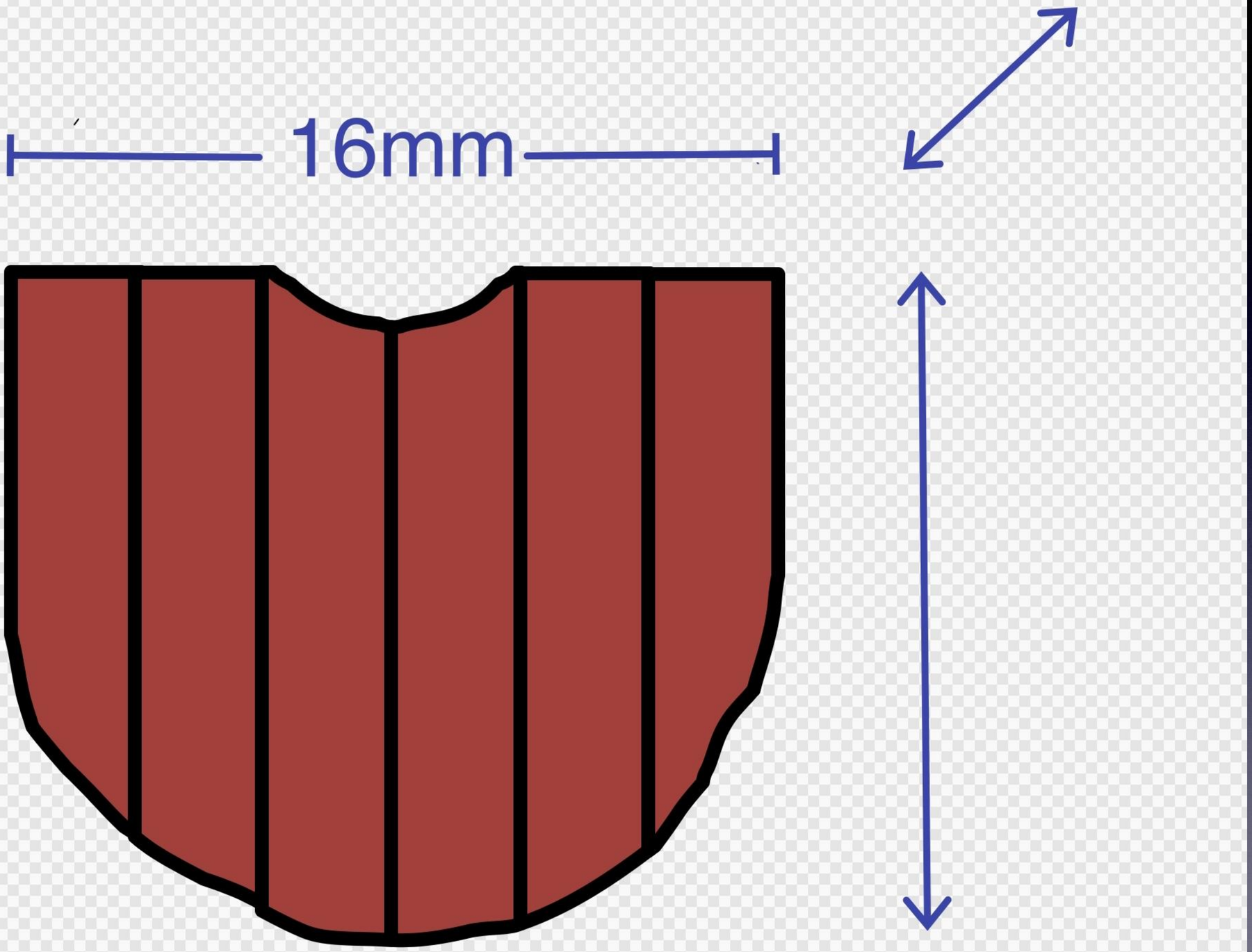
The Royal College of Pathologists
Pathology: the science behind the cure

How I cut up a LLETZ

- Opening or probing an intact loop or cone biopsy may damage the surface epithelium and must be avoided
- Look for any surface lesions
- Measure in 3 dimensions - know what you're measuring



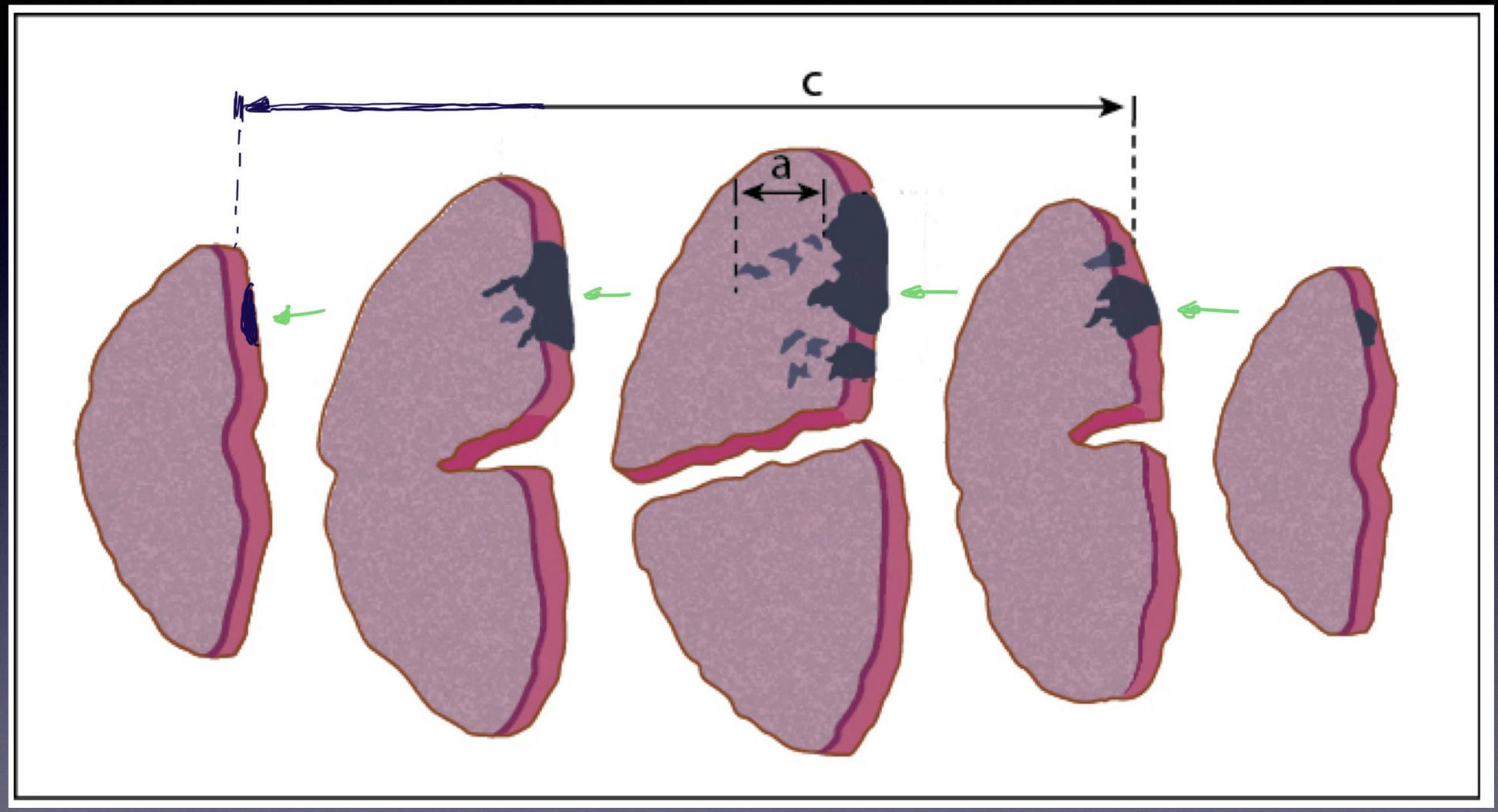
- Depth of excision - Parameter for colposcopic performance


16mm









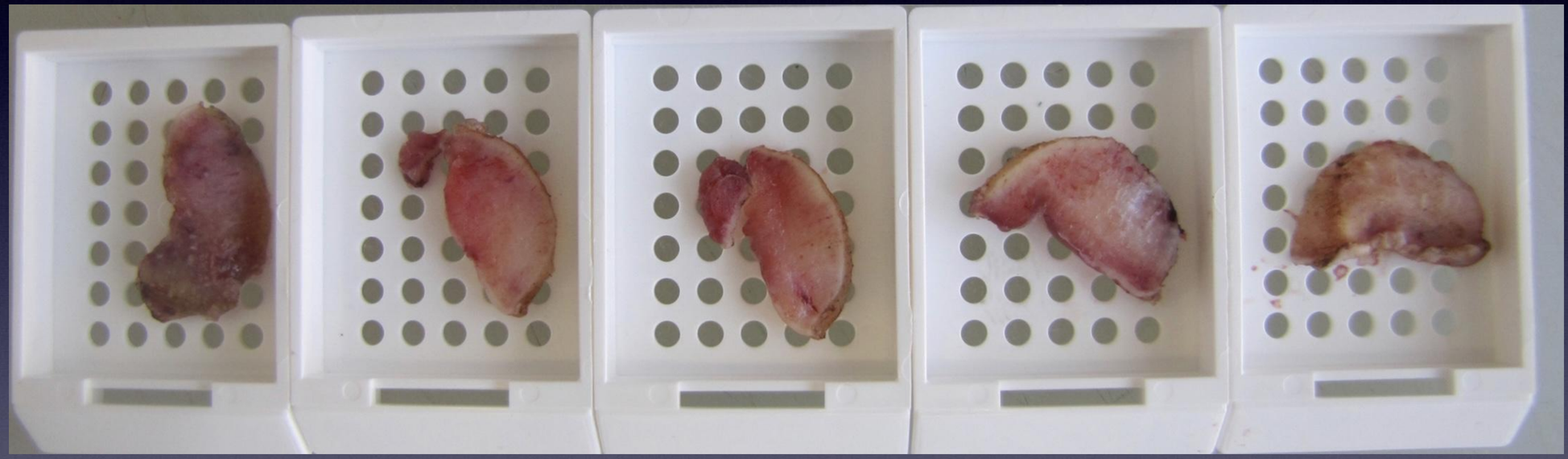
Modified from

To reference this dataset please use the following citation: Park KJ, Alvarado-Cabrero I, Duggan MA, Kiyokawa T, Mills AM, Ordi J, Otis CN, Plante M, Stolnicu S, Talia KL, Wiredu EK, Lax SF, McCluggage WG (2021). *Carcinoma of the Cervix Histopathology Reporting Guide*. International Collaboration on Cancer Reporting; Sydney, Australia. ISBN: 978-1-922324-24-5.



“Place each slice of tissue in a single cassette.

This is very important when assessing invasion if present.”





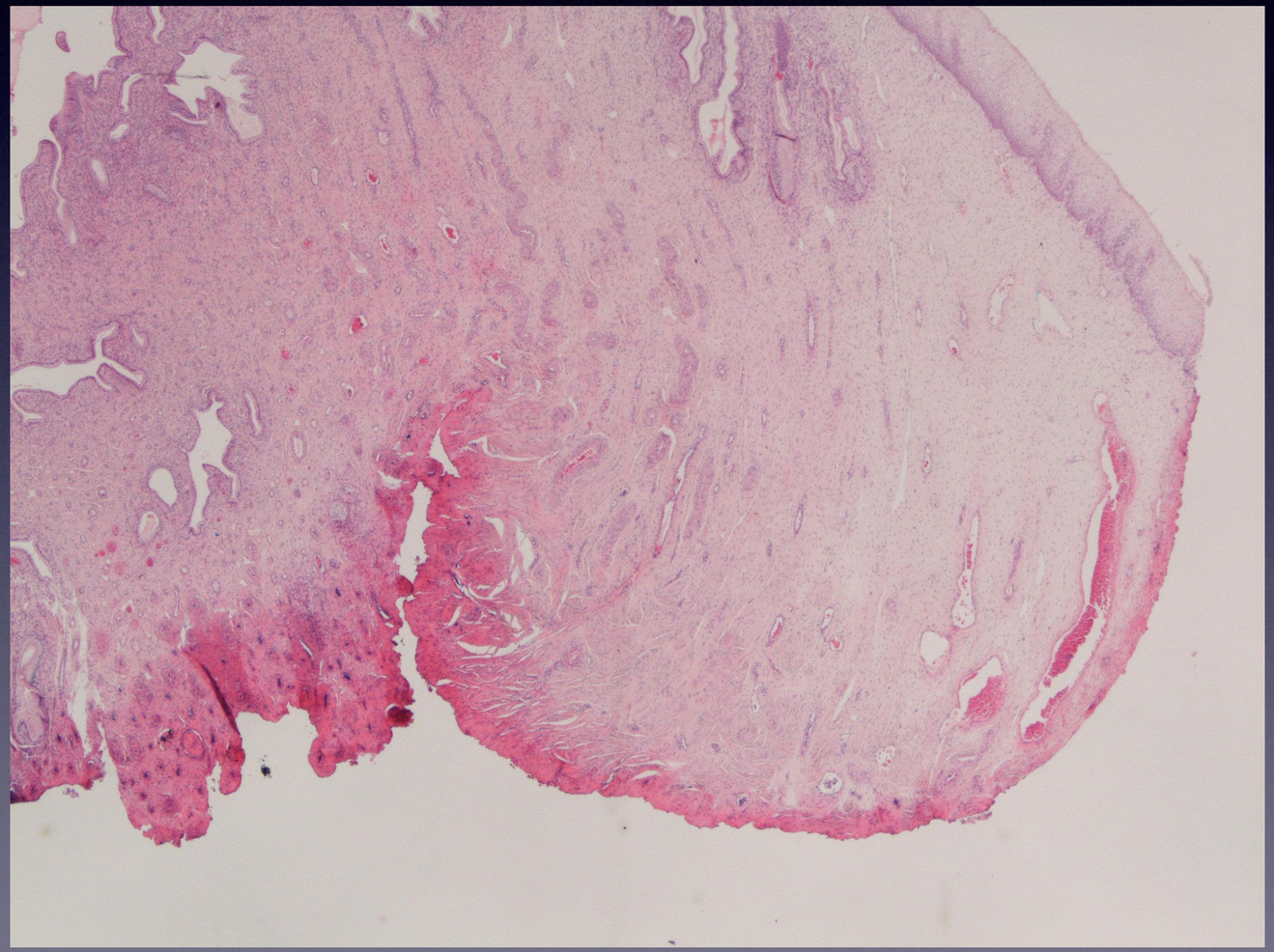
MDSF = Margin down, shallow first

LLETZ

- How to recognise the transformation zone
- Other histological features
- How I cut up a LLETZ
- Why you might ink a LLETZ
- Reporting of margin status

Why might you ink a LLETZ?

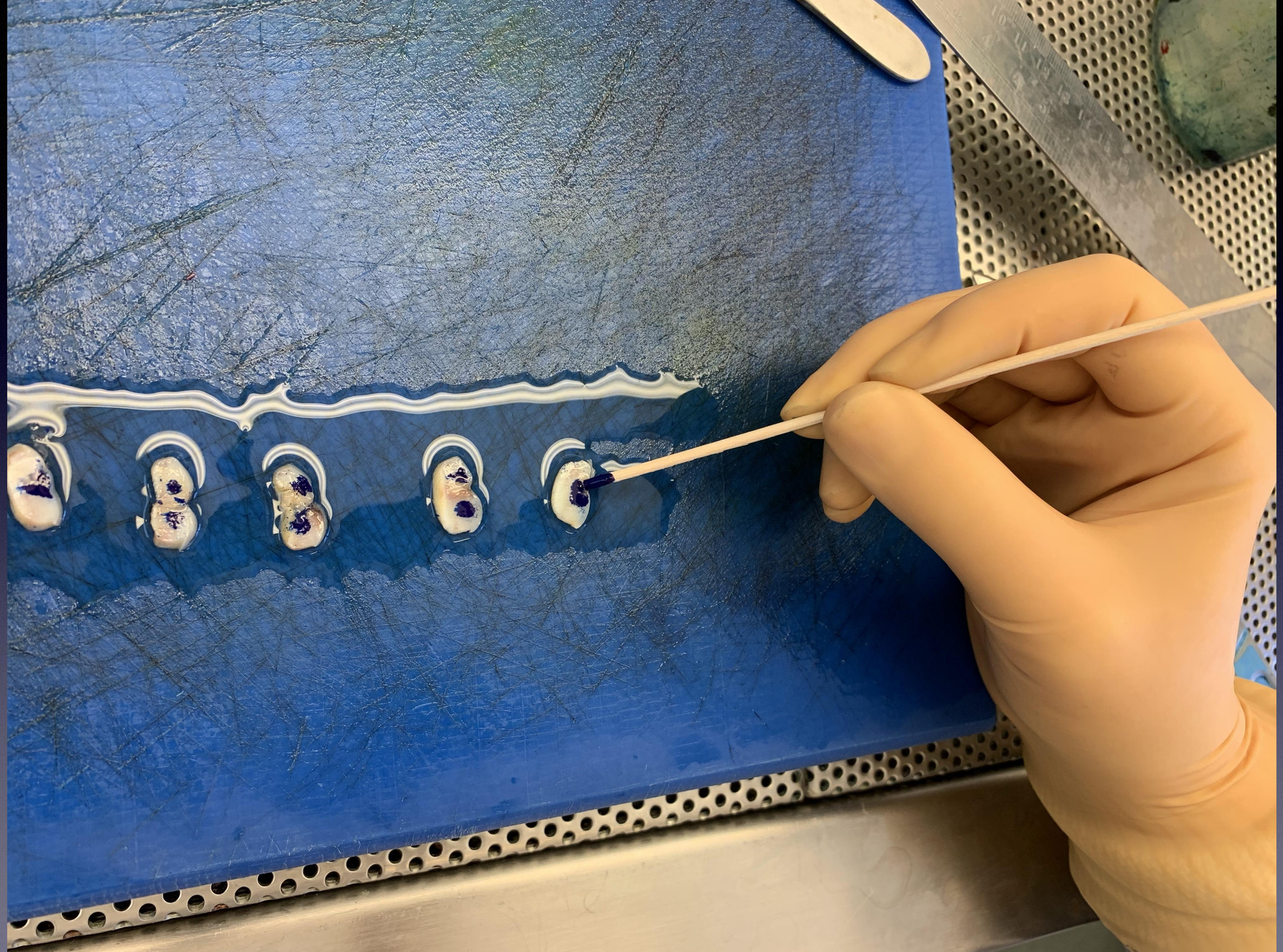
NOT to identify the true margin



1. “to assist the embedder”







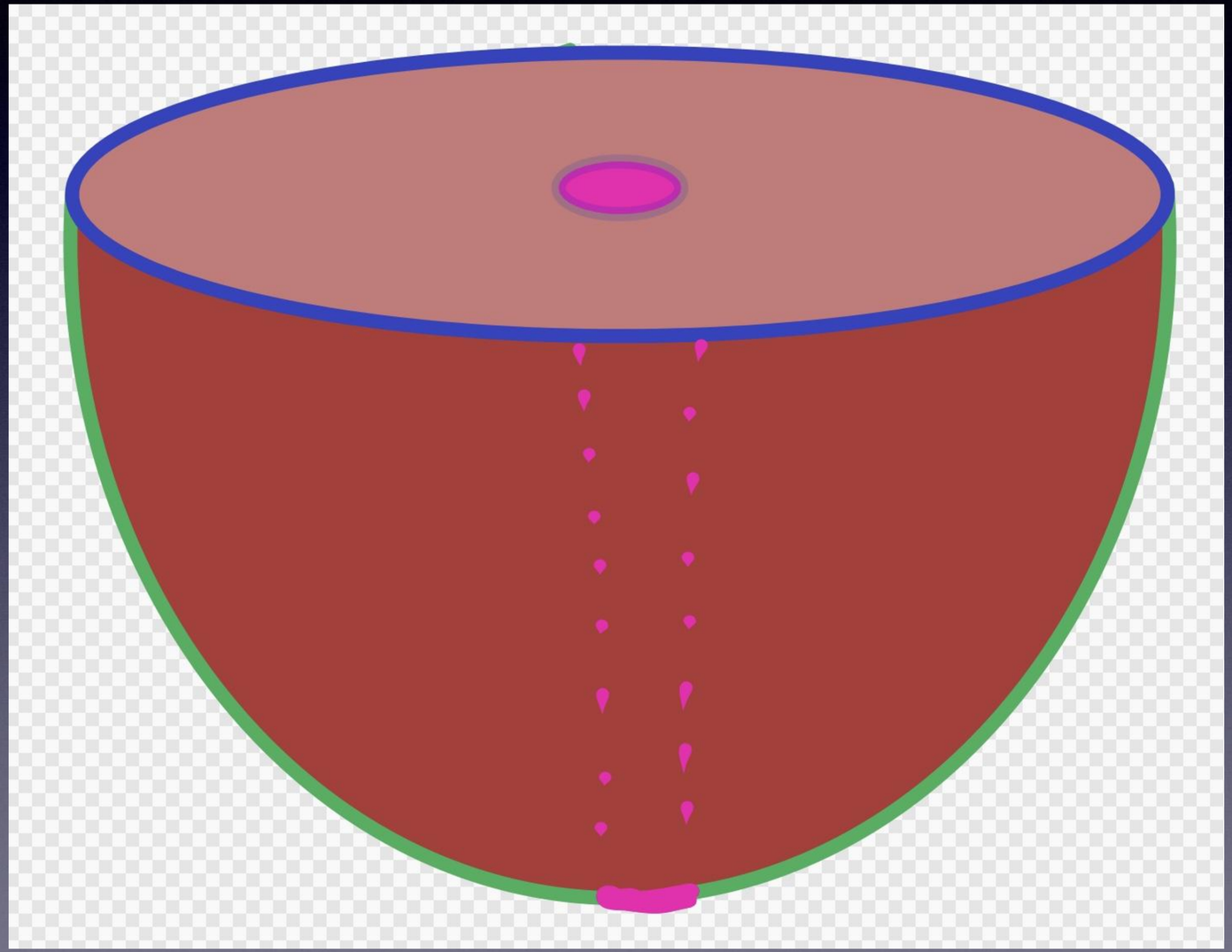

S21 · 15583
1
S21 · 15583
2
S21 · 15583
3
S21 · 15583
4
S21 · 15583
5
S21 · 15583
6

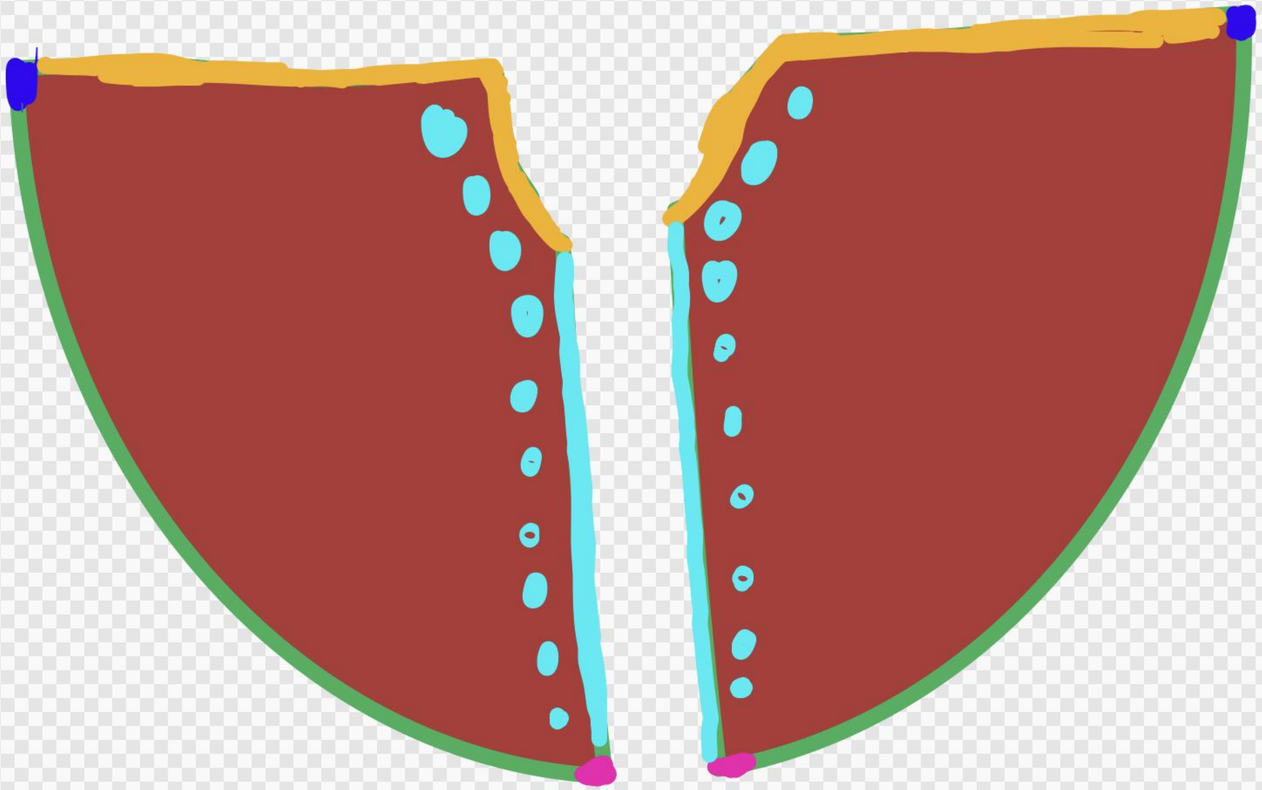
Why might you ink a LLETZ?

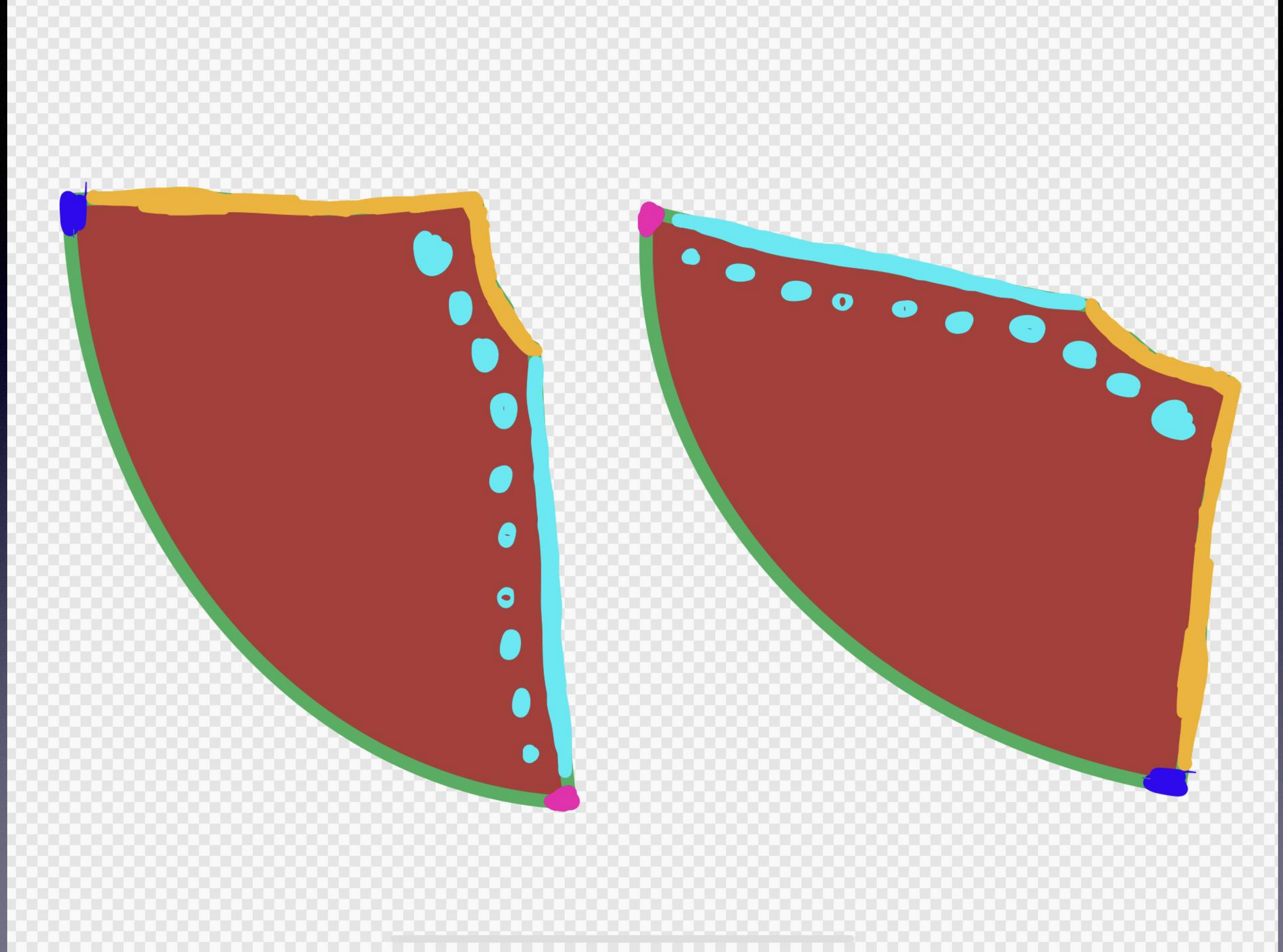
2. Confirm identity of margins

- Ectocervical and endocervical refer to direction of margin, not the type of epithelium at the margin

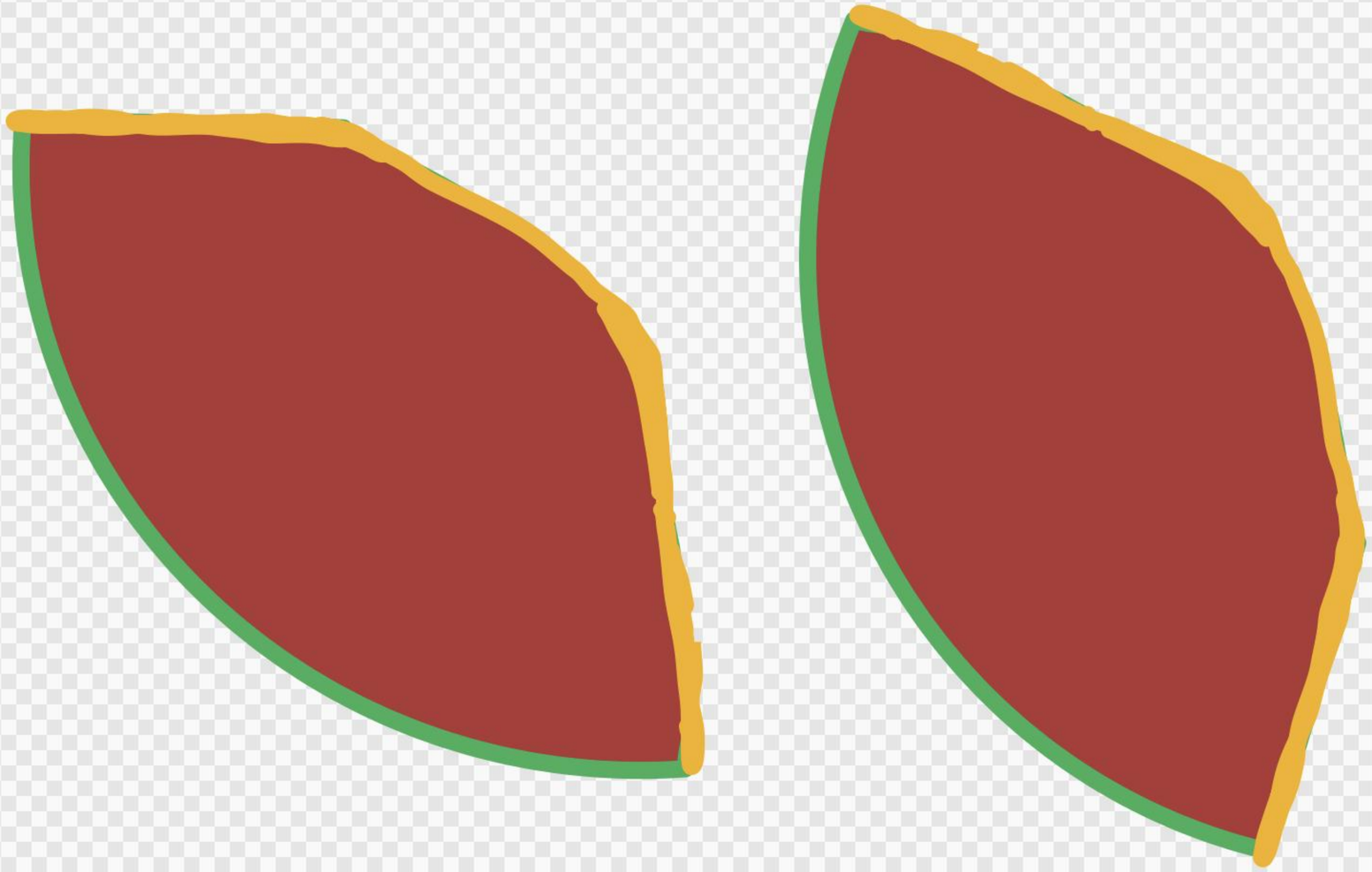
Margins

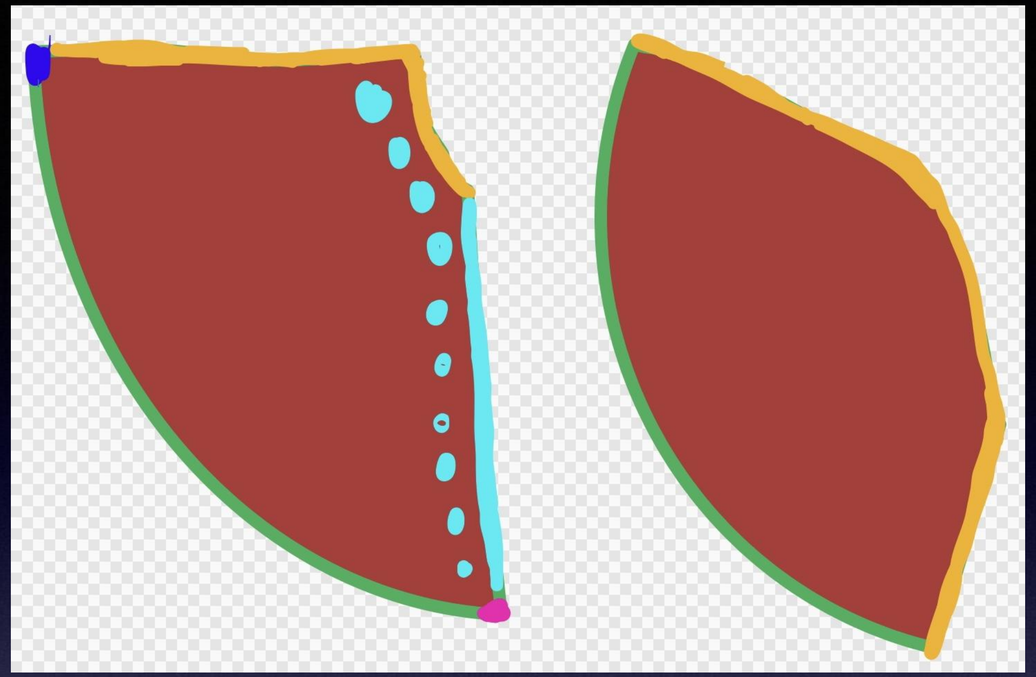




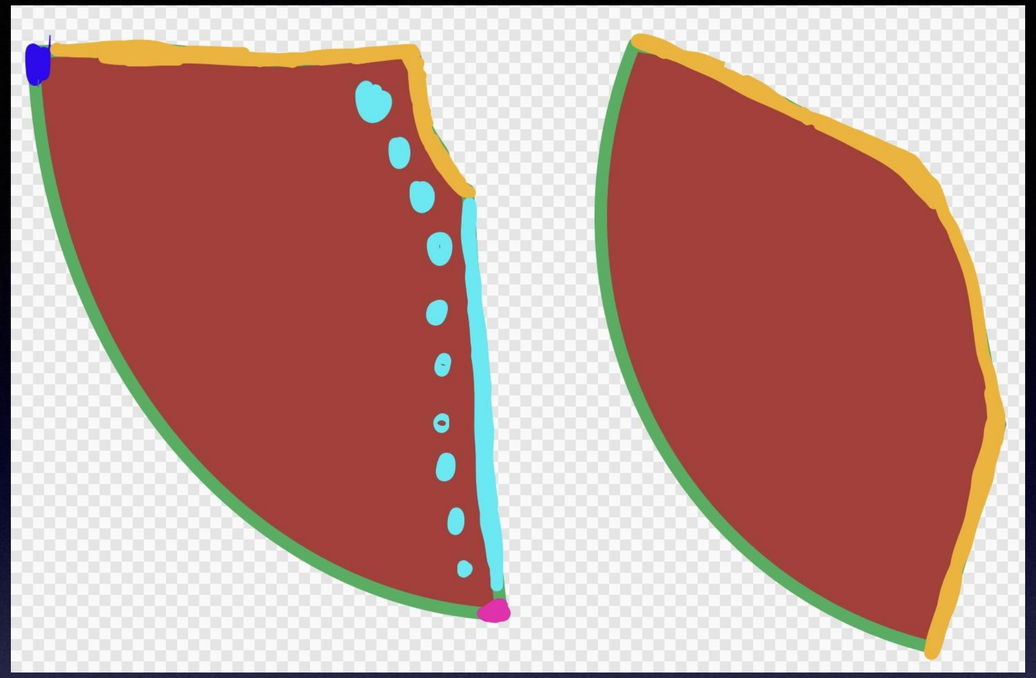


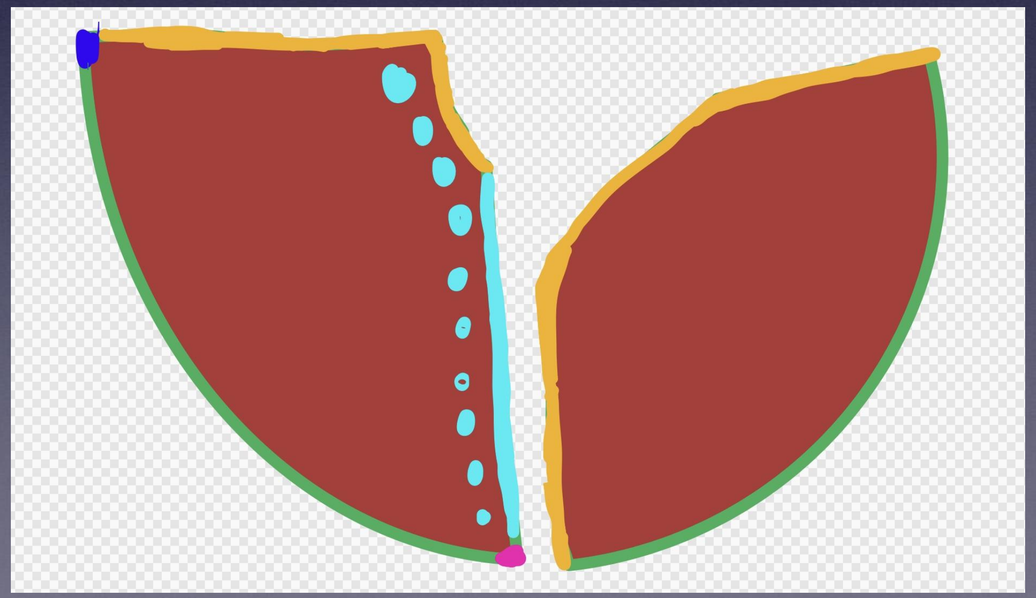


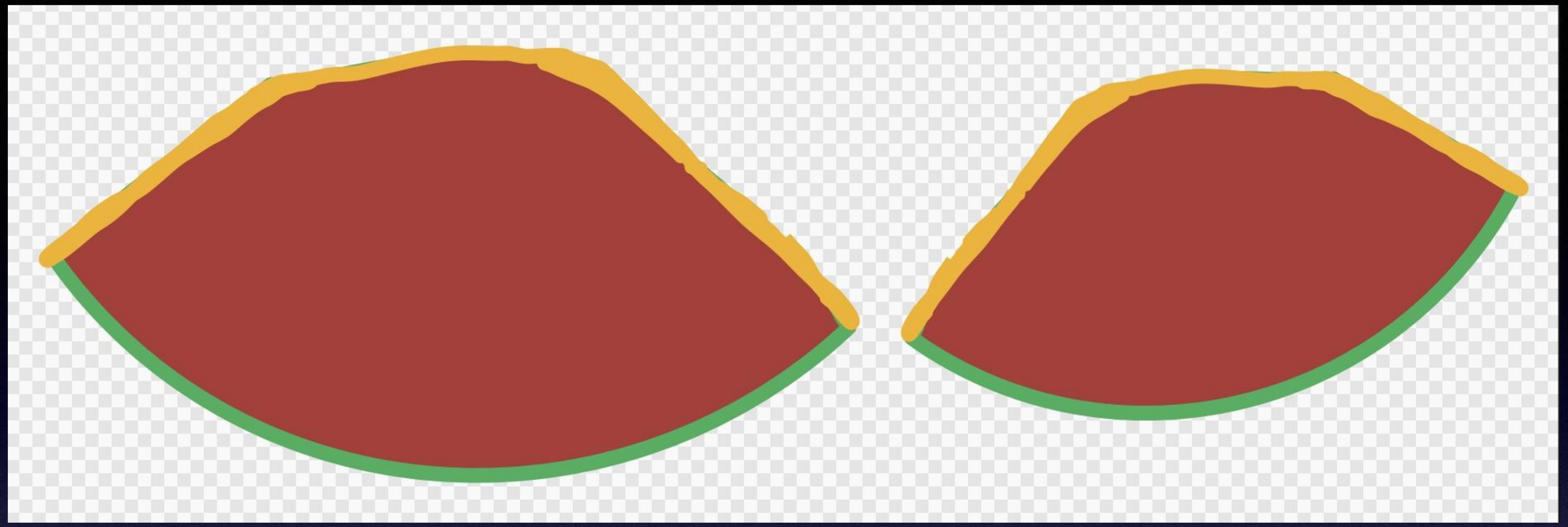




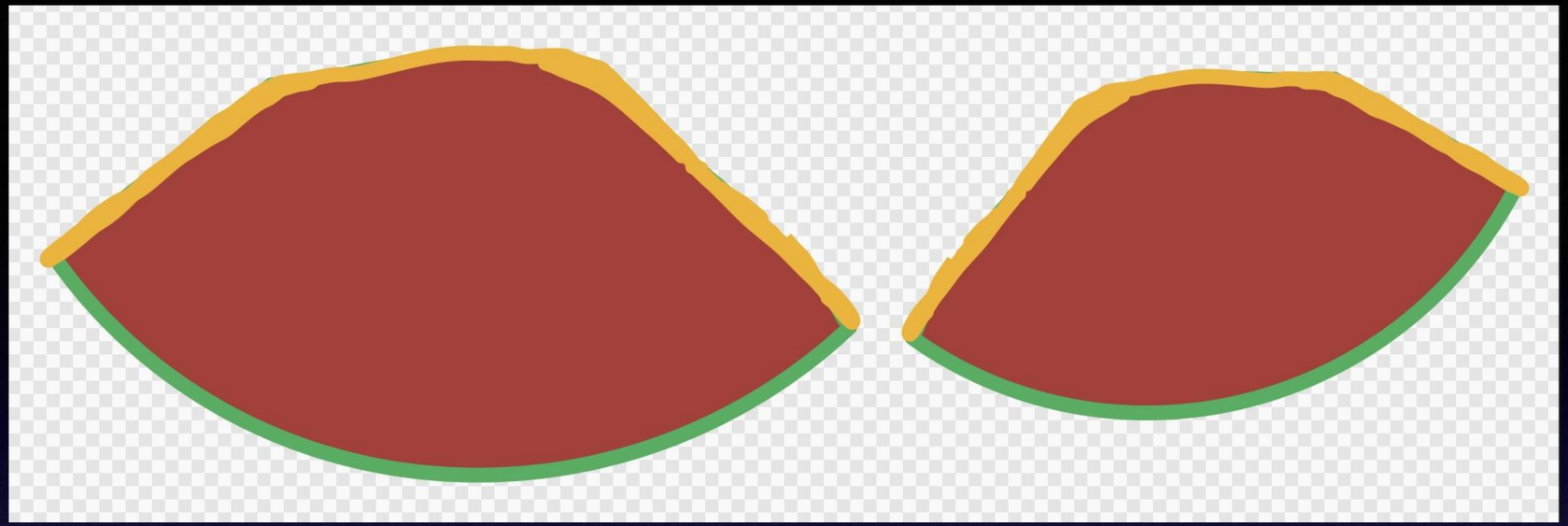
Symmetry

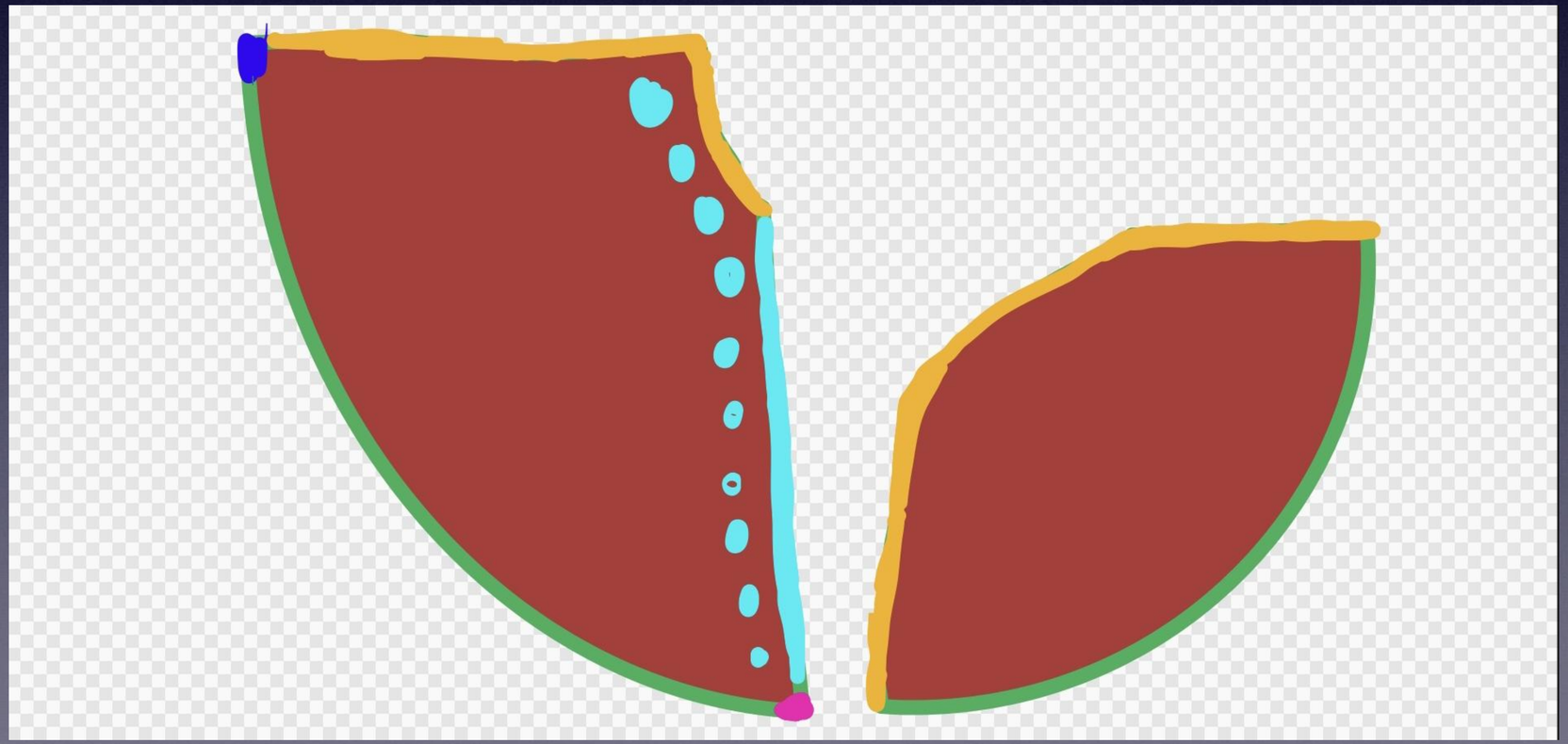






Adjacent slice





- Ectocervical and endocervical refer to direction of margin
  - not the type of epithelium at the margin

- You can usually work out which margin is which

Why might you ink a LLETZ?

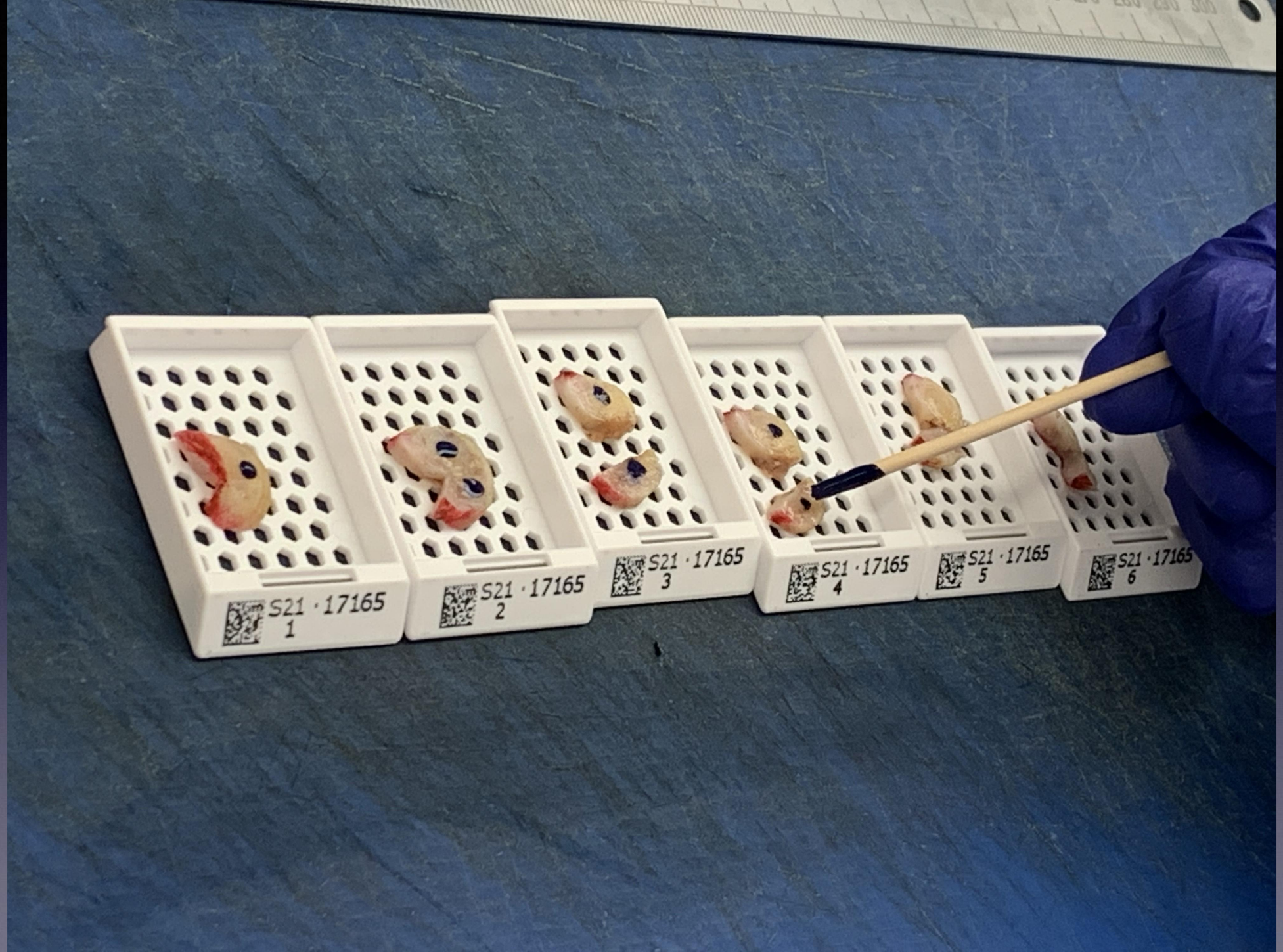
2. Confirm identity of margins

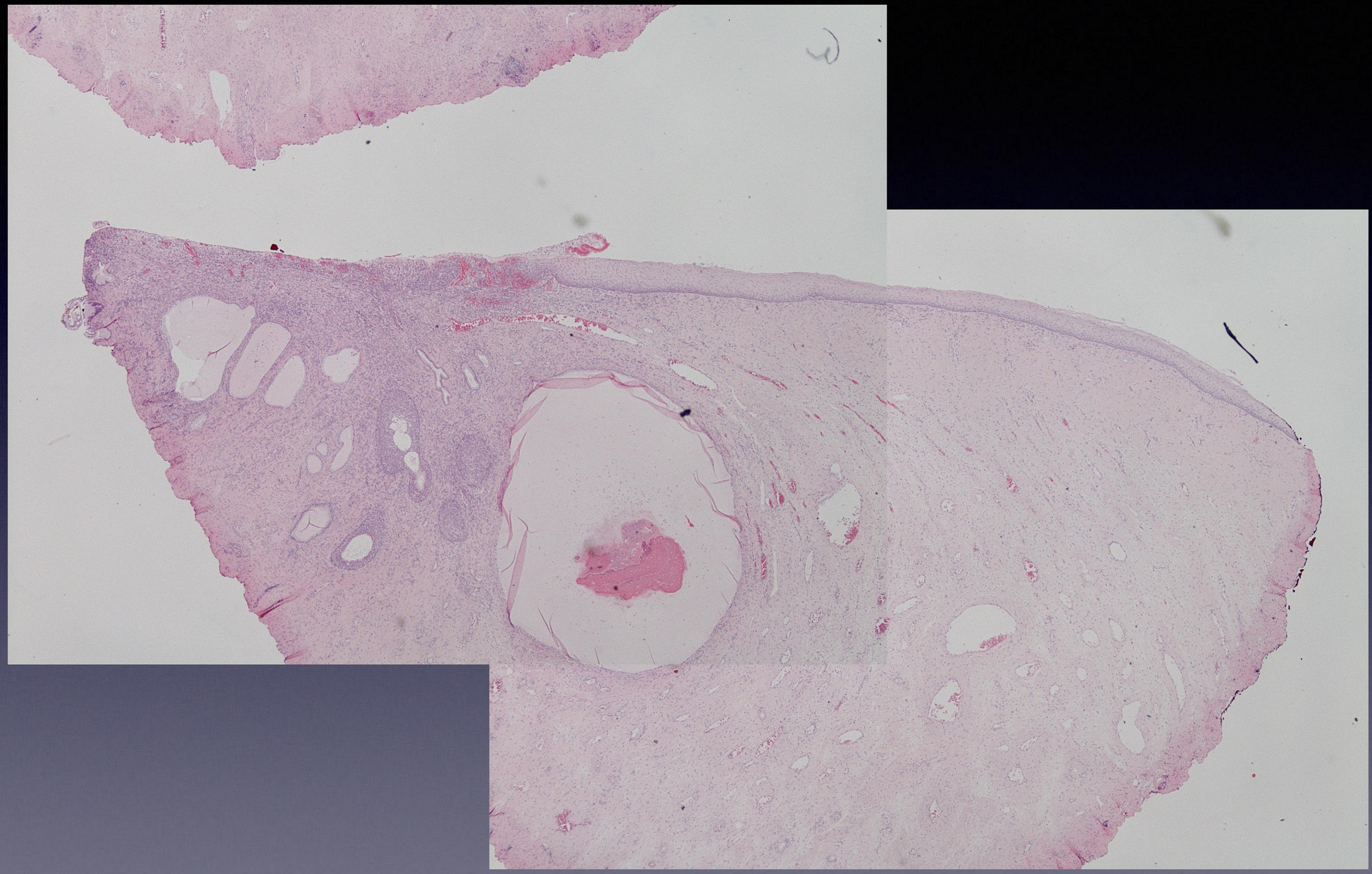
- “Inking the ectocervical rim can be useful when orientating individual slices…”


30
40
50


½ m m
10
20
30
40




S21 · 17165
1
S21 · 17165
2
S21 · 17165
3
S21 · 17165
4
S21 · 17165
5
S21 · 17165
6



LLETZ

- How to recognise the transformation zone
- Other histological features
- How I cut up a LLETZ
- Why you might ink a LLETZ
- Reporting of margin status



High grade CIN extending to the deep lateral or endocervical margins

- results in a higher incidence of recurrence
- does not justify routine repeat excision if:
  - no evidence of glandular abnormality
  - no evidence of invasive disease
  - the individual is <50 years

Therefore

Individuals <50 years

with HG CIN at the deep lateral or endocervical margin

You do not need to examine extra levels or turn end blocks

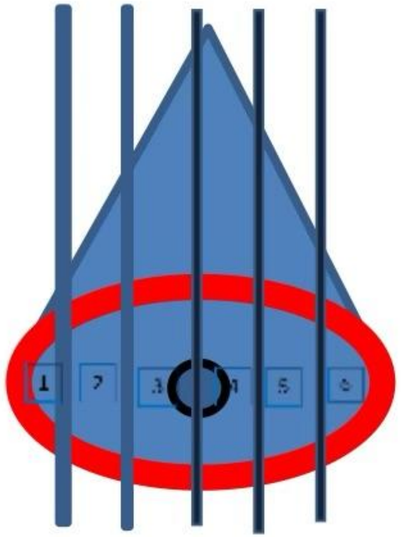
Reporting of Margin status

- To assess true margin, may need to:
  - Levels, or
  - Turn end blocks

TRIMMING LLETZ SPECIMENS – AGED 50 YEARS OR OVER

STEP 1

INK THE ECTOCERVICAL MARGIN – LIPSTICK RED

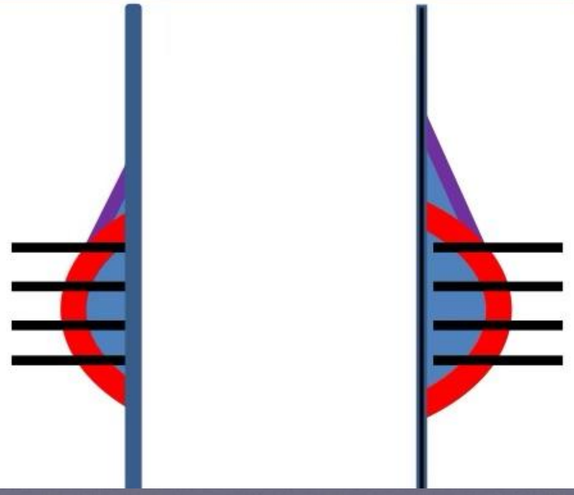


STEP 2

SLICE AT 2 - 3 MM INTERVALS

STEP 3

END BLOCKS TRIM RADIALLY

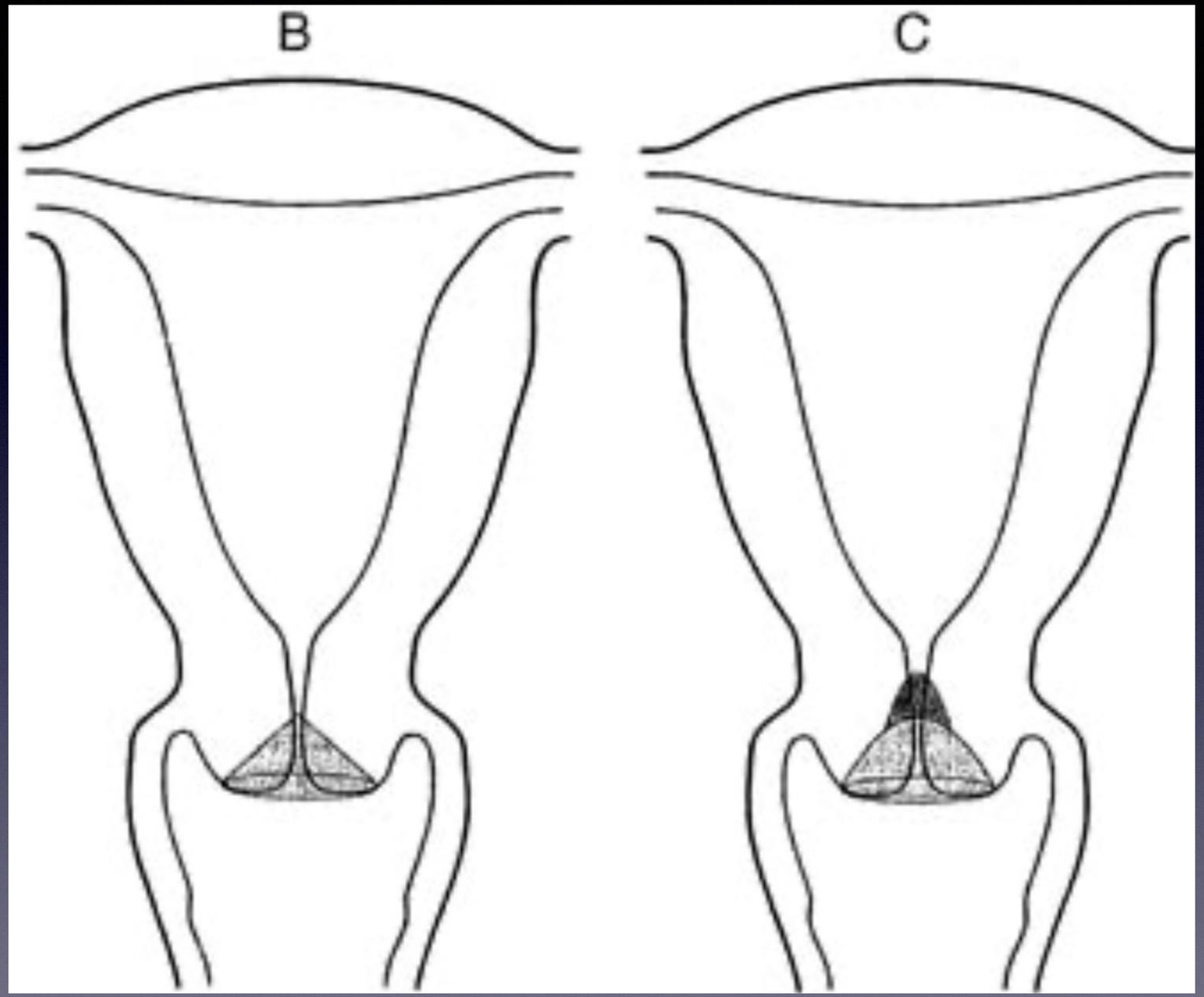


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Summary

- How to recognise the transformation zone
- Other histological features
- How I cut up a LLETZ
- Why you might ink a LLETZ
- Reporting of margin status