

AN INTERESTING  
CERVICAL SCREENING  
CASE STUDY

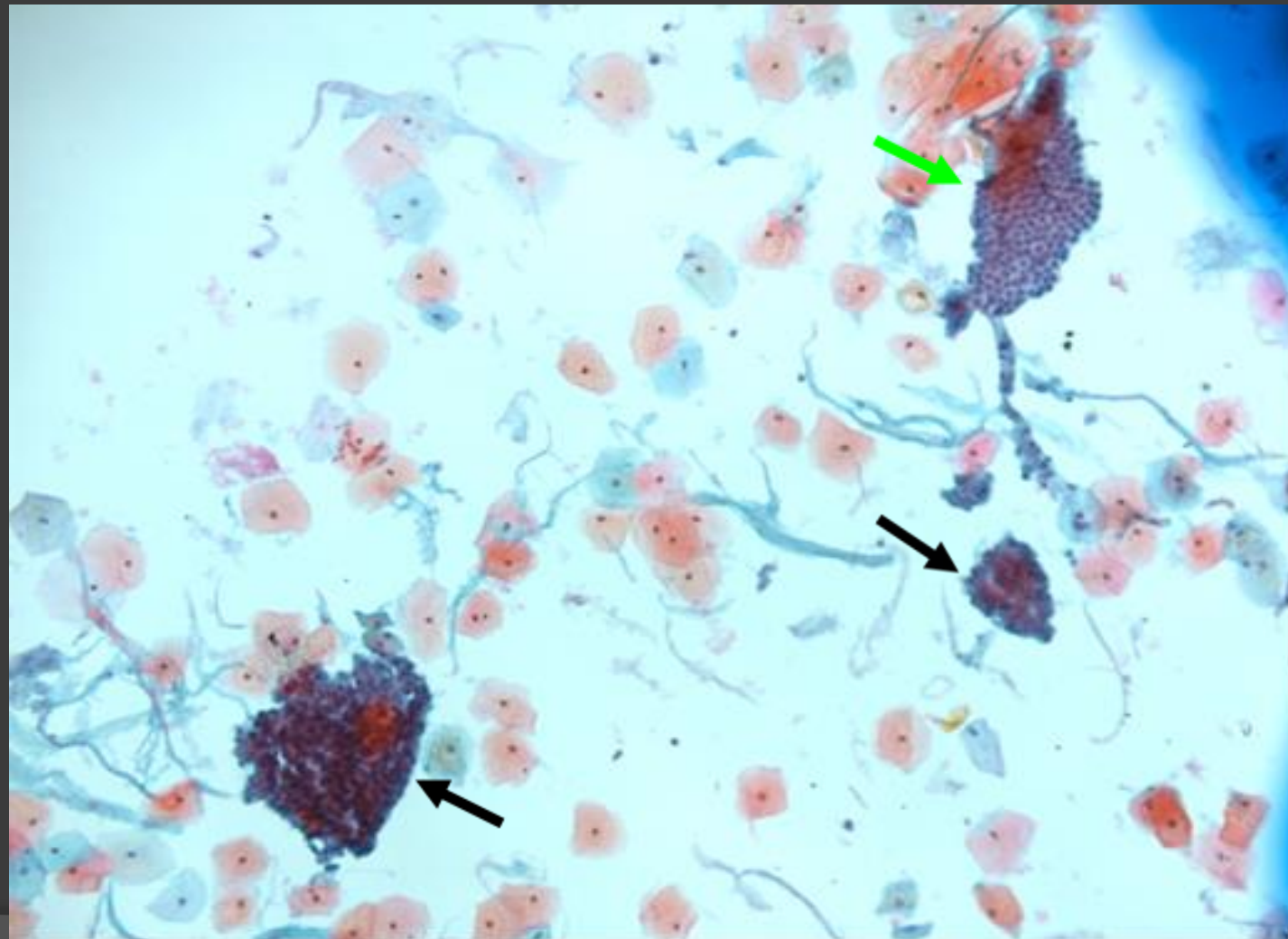
# Clinical information

- *Age: 30 yr old.*
- *Parity: 2 full term*
- *Contraception: None*
- *LMP: not stated*

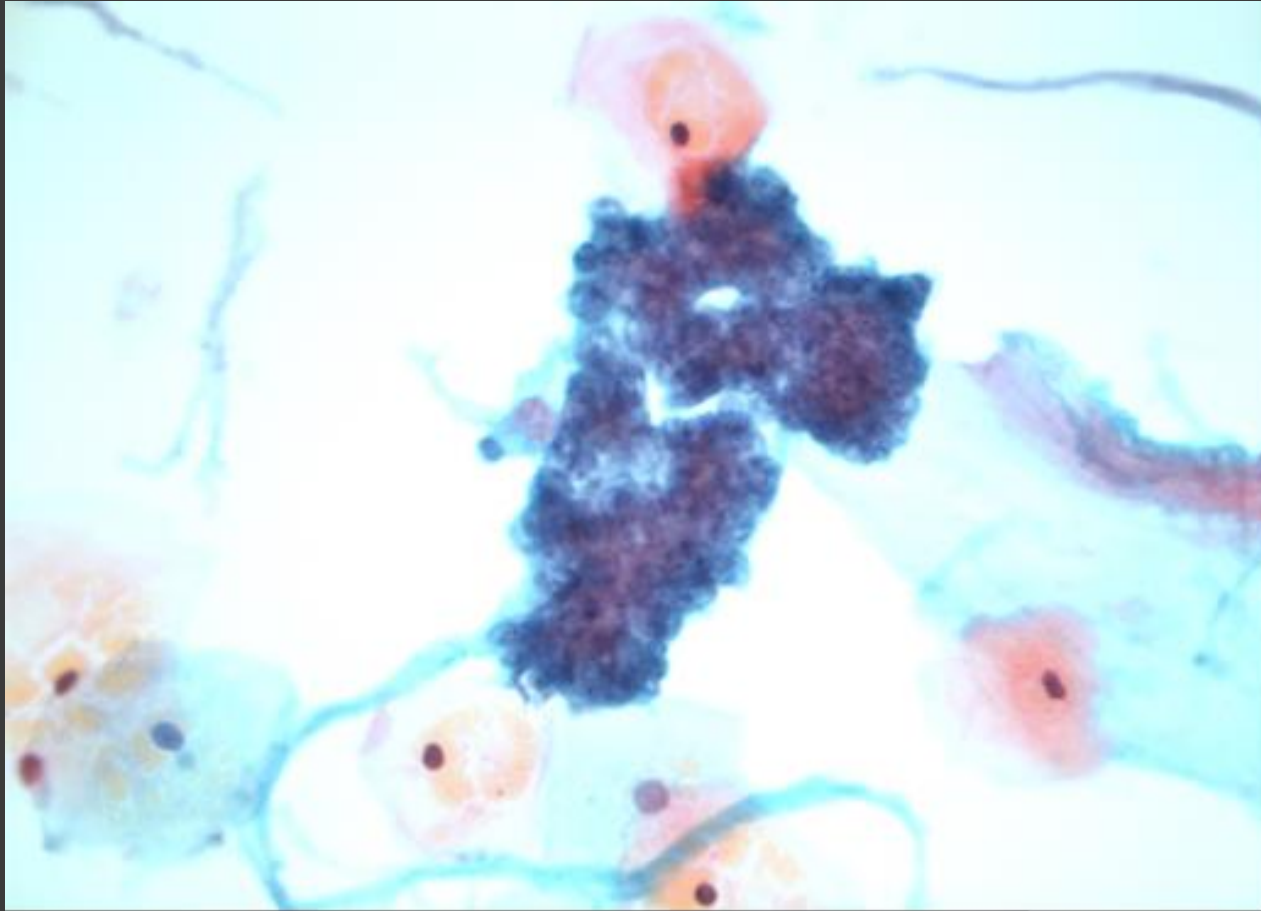
# Screening History:

- Follow up surveillance sample for previous high grade (severe) cytology.
- Colposcopic opinion was high grade.
- LLETZ taken: Histology showed HPV & cervicitis only.
- MDT review agreed with high grade cytology report.
- Patient discharged for ToC in 6/12

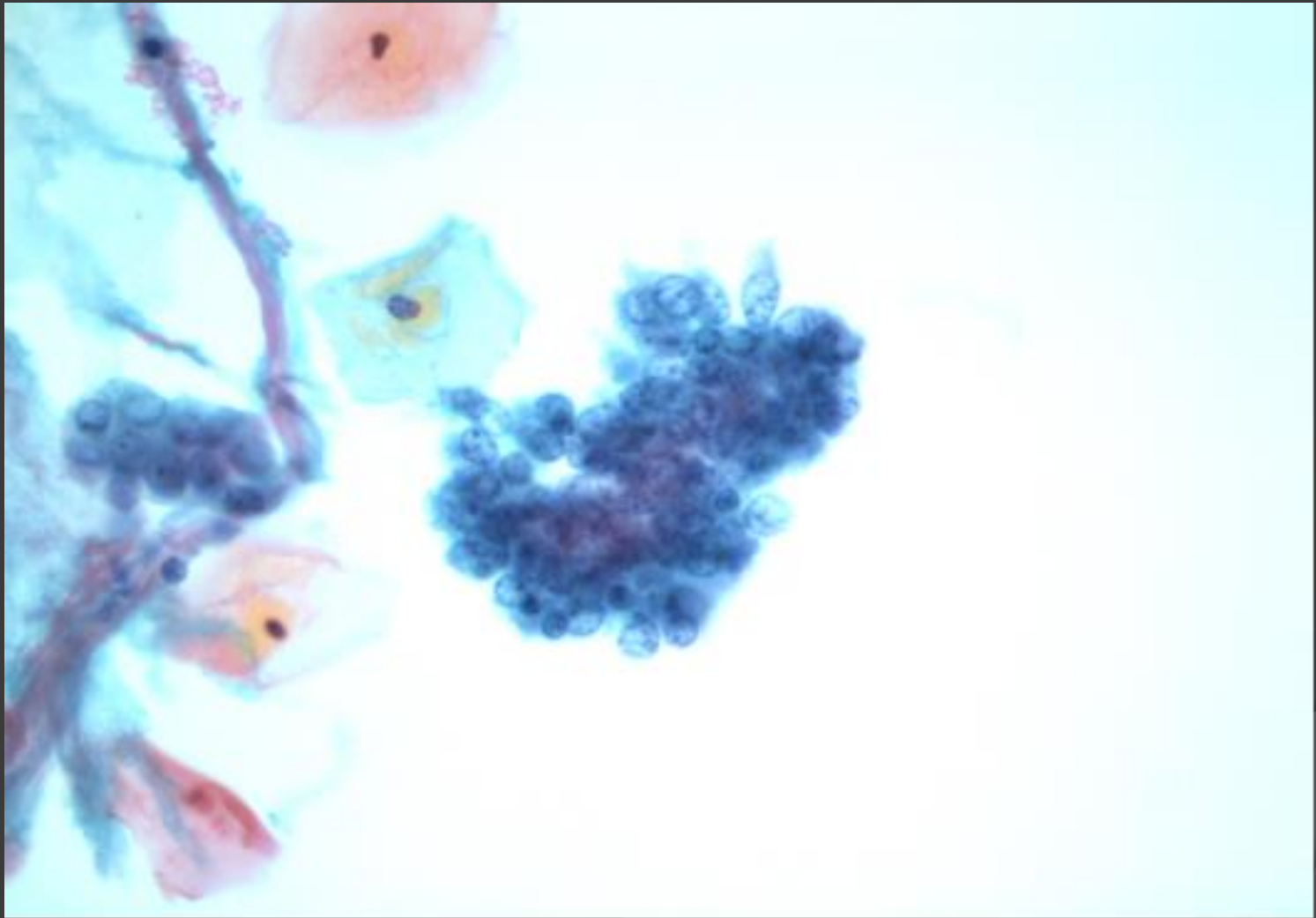
Pap x10



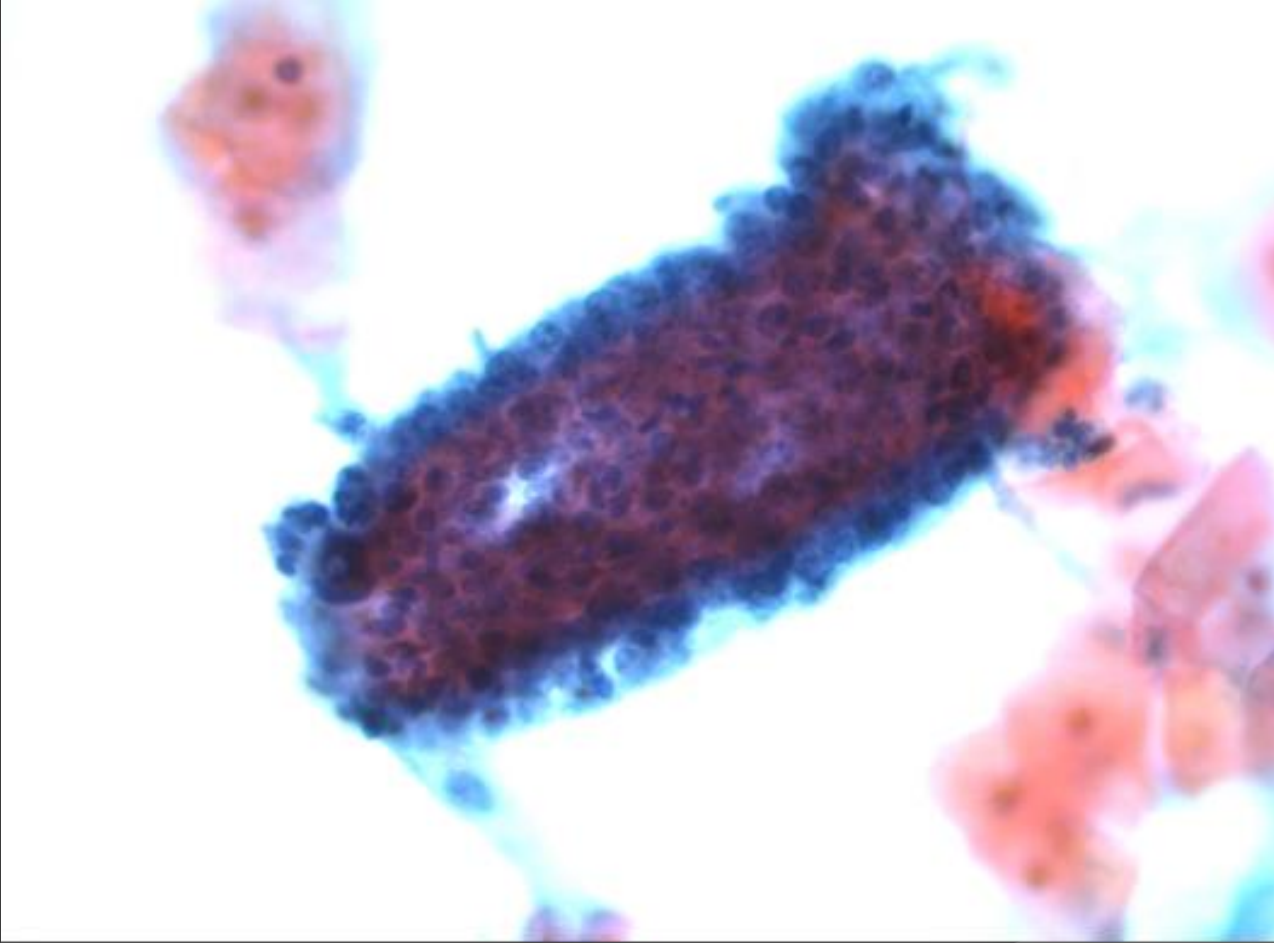
Pap x40



Pap x40



Pap x40



# Cytology report issued:

- *Severely dyskaryotic endocervical glandular cells present ? glandular neoplasia.*
- *Urgent referral to colposcopy.*



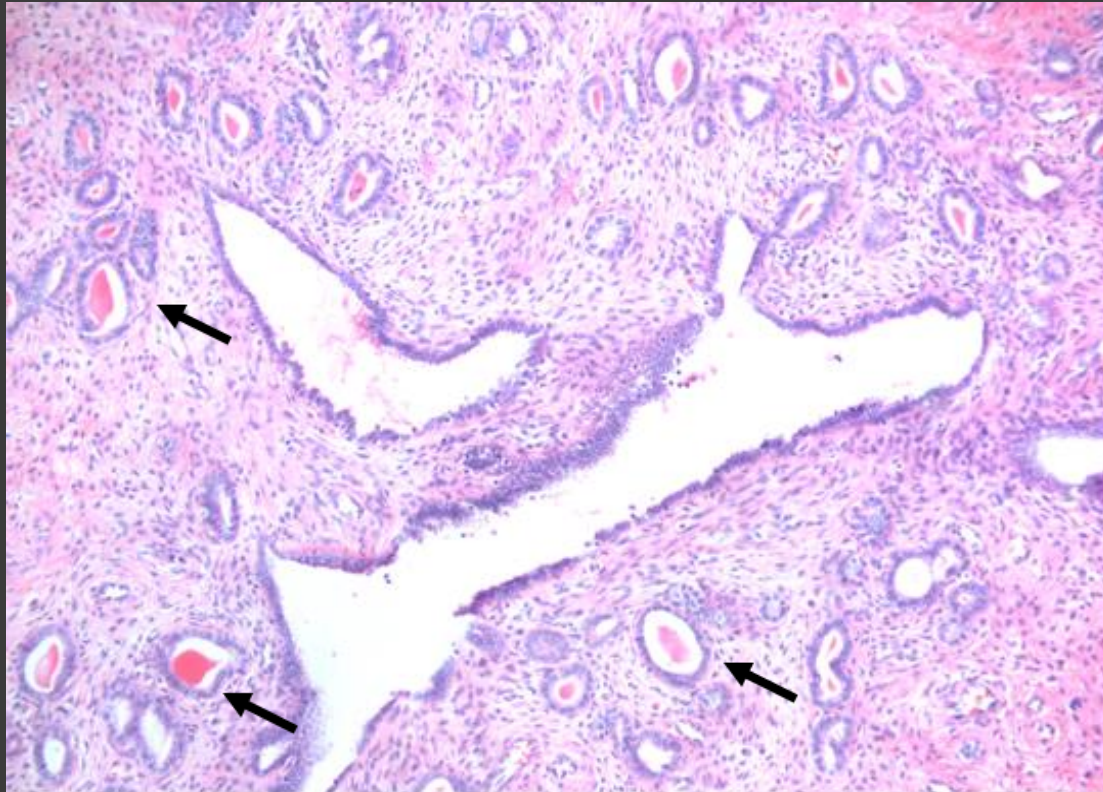
# Follow-up

- Colposcopic appearance of the cervix was normal.
- However as colposcopic assessment of the cervix is less sensitive for the diagnosis of glandular lesions a LLETZ treatment was recommended.

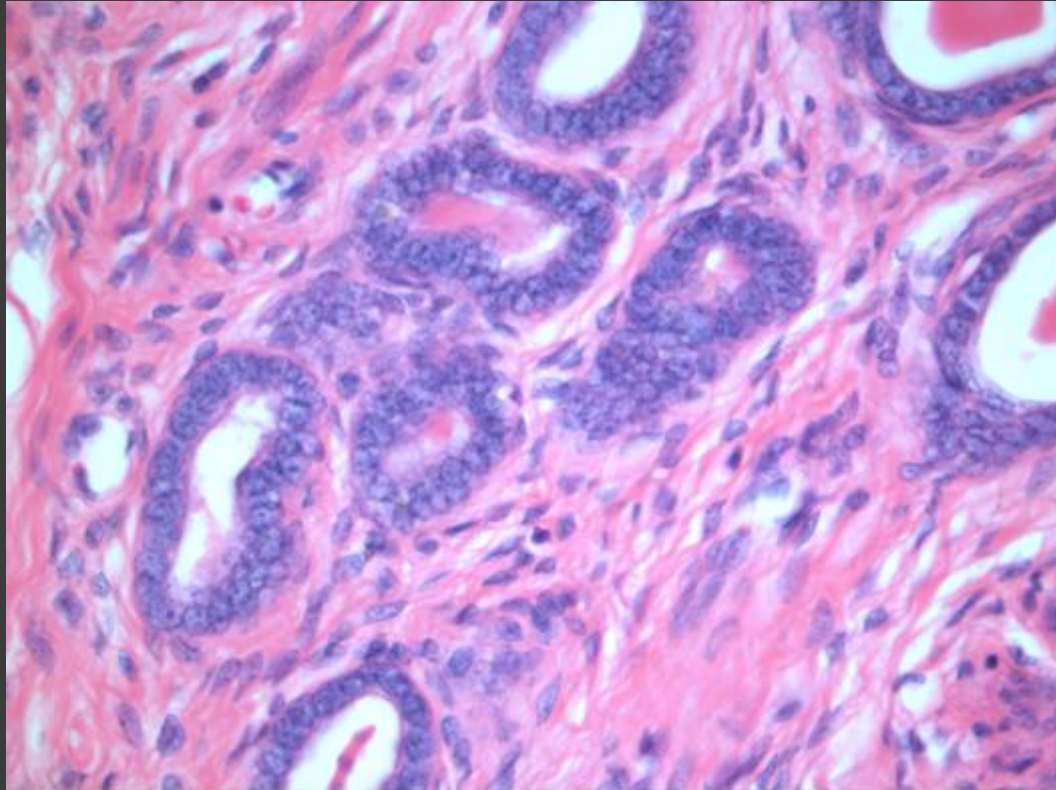
# Follow up

- LLETZ specimen received in two pieces:
- Piece of epithelial covered tissue 17x8x10mm and separate diathermised tissue 10x8x5mm.
- Central os identified in the larger piece of tissue.

# LLETZ H&E (x10)



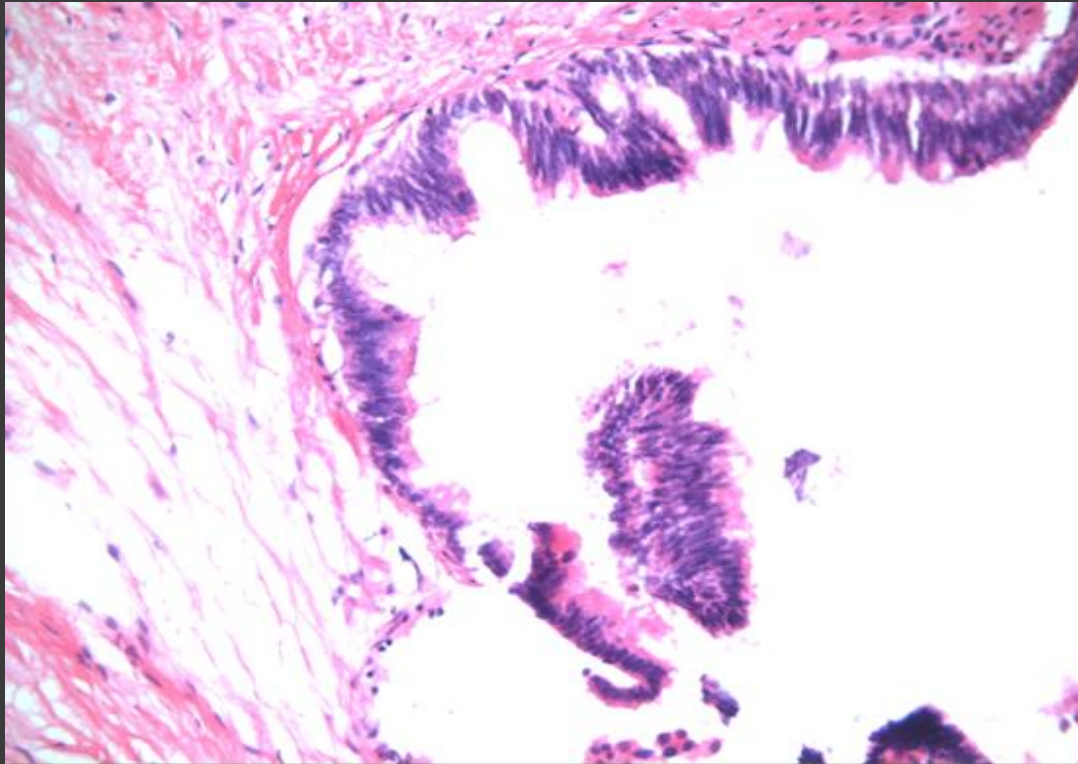
# LLETZ H&E (x40)



# Histology findings:

- The larger piece includes the squamocolumnar junction but minimal endocervical tissue.
- One lateral end block shows proliferation of glands containing eosinophilic material and lined by fairly uniform columnar cells. Appearances suggest mesonephric hyperplasia.

# LLETZ H&E (x10)



# Histology findings continued:

- Smaller separate piece shows a few irregularly shaped glands in the stroma lined by epithelium which lacks mucin. Severe diathermy artefact present.
- Ki-67 proliferation fraction is low, no definite mitotic figures identified. Interpretation is difficult. May represent further focus of mesonephric hyperplasia or tuboendometrioid metaplasia.

# Histology findings - Differential Diagnosis

- CGIN could not be excluded.
- Referral cytology reviewed - original result upheld
- Report recommendation: Further loop biopsy should be considered - MDT review required



# Colposcopy MDT

## Histology & cytology reviews

- Both reports upheld - ie: CGIN cannot be excluded

## Management decision

- Discuss LLETZ results with patient
- Offer options of repeat LLETZ or hysterectomy
- Patient opted for hysterectomy as family complete

# HYSTERECTOMY SPECIMEN

Macro:

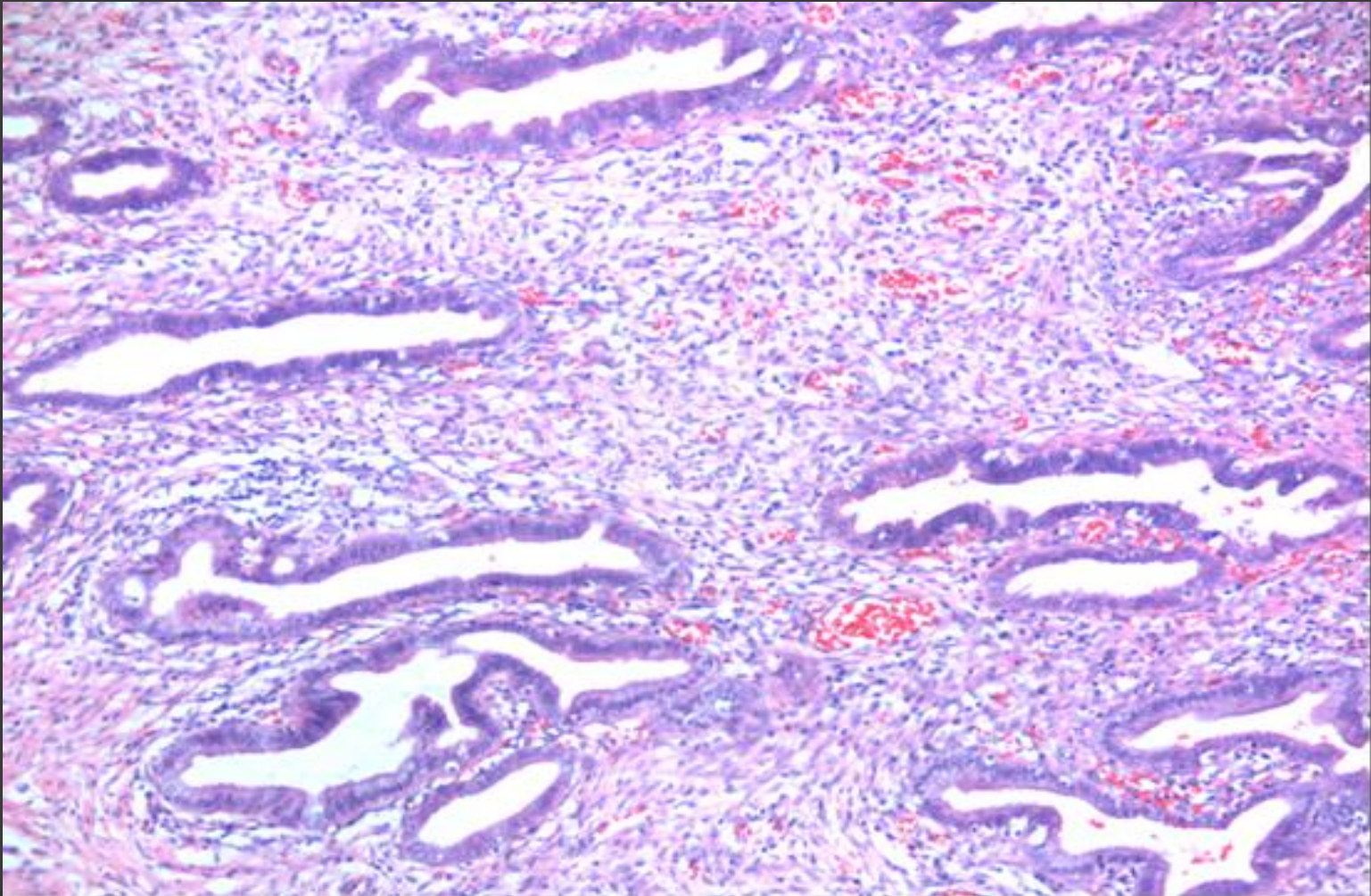
Uterus & cervix 100 x 70 x 50mm

No abnormality identified in the cervix, entire cervix blocked (in view of history)

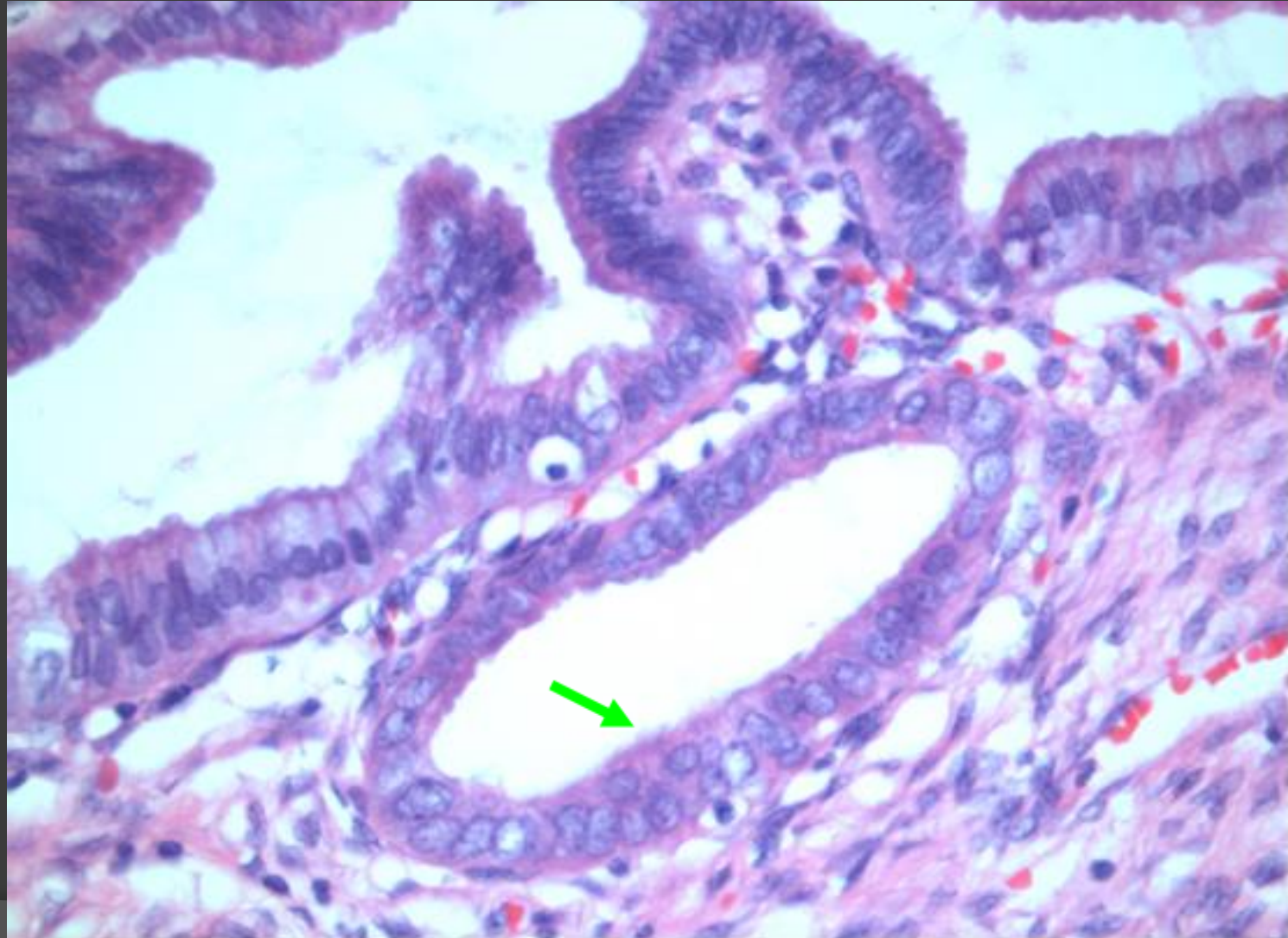
Anterior endometrium measures up to 10mm in thickness

No focal lesion seen within the myometrium

# Hysterectomy: H & E x10



# Hysterectomy: H & E x40



# HYSTERECTOMY SPECIMEN

## Microscopy & Diagnosis:

- Endocervix shows extensive tubo-endometrioid metaplasia.
- Focally associated cellular stroma indicating possible superficial endometriosis.
- Mesonephric hyperplasia consisting of a proliferation of fairly small tubules, many with eosinophilic secretions which in areas extend close to the endocervical lumen.
- Endometrium is in secretory phase. Myometrium unremarkable. Small focus of endometriosis in uterine serosa
- No evidence of CIN, CGIN or malignancy.

# Mis-correlation discussion:

- TEM, endometriosis of cervix and more rare findings of mesonephric hyperplasia
- These are all pitfalls in cytology for false positive report of ?glandular neoplasia

# Mis-correlation discussion:

## Tubo-endometrioid Metaplasia (TEM)

- Presence of epithelium of tubal and endometrial type
- Epithelium of upper female genital tract (tubes, endometrium and endocervix) derived embryologically from Mullerian (paramesonephric) duct.
- Typical epithelium to site is characteristic of that site (ie: endocervical glandular epithelium in endocervix etc),
- Apparently inappropriate Mullerian epithelium may be found at any position within the tract.

# Mis-correlation discussion:

## ● Endometriosis

- Presence of endometrial-type glands and recognisable endometrial stroma occasionally seen in the cervix.
- Differs from TEM which does not have associated endometrial stroma.
- Seen either as a superficial phenomenon lining the canal or at the external os, or as deeper deposits (here often in association with endometriosis elsewhere).
- Superficial form found commonly in women who have had previous cervical surgery - may be caused by menstrual 'seeding' or by removal of cervical tissue bringing the endometrium closer to the external cervical os.

## ● TEM & endometriosis of cervix: associated with prior cervical treatment (LLETZ)



# Mis-correlation discussion:

## ◎ Mesonephric remnants -

- Mesonephric (Wolffian) duct remnants - which embryologically regress during their development
  - Normally remnants observed as concentric arrangement of clusters of gland tubules sometimes found organised around a central mesonephric duct often with a prominent basement membrane.
  - Glands lined by a single layer of low cuboidal to cuboidal epithelium.
  - Cytoplasm lacks glycogen and mucin.
  - Lumina nearly always contain an eosinophilic homogenous material (PAS and mucicarmine positive).
  - N:C ratio high, but nuclei usually bland and commonly overlap.

# Mis-correlation discussion:

- ◎ **Mesonephric hyperplasia**
  - Well known but uncommon entity arising from mesonephric remnants
  - Increase in the number of tubules in a more haphazard arrangement & may occupy the cervical wall extensively.
  - Cellular & nuclear features unaltered - pivotal in making distinction from malignancy.
- ◎ **May cause abnormal cervical cytology - abnormal glandular cells in loose clusters with cuboidal outlines and no significant anisonucleosis - correlates with cytological findings in this case.**