# Approach to Glandular Atypia on Paps

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## Objectives

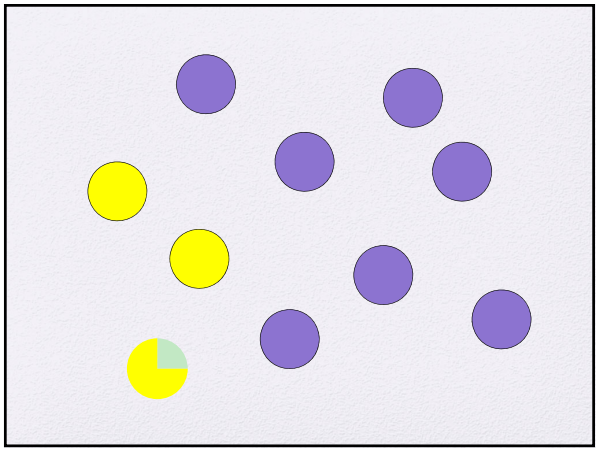
After this session on glandular lesions in Pap tests, should be able to:

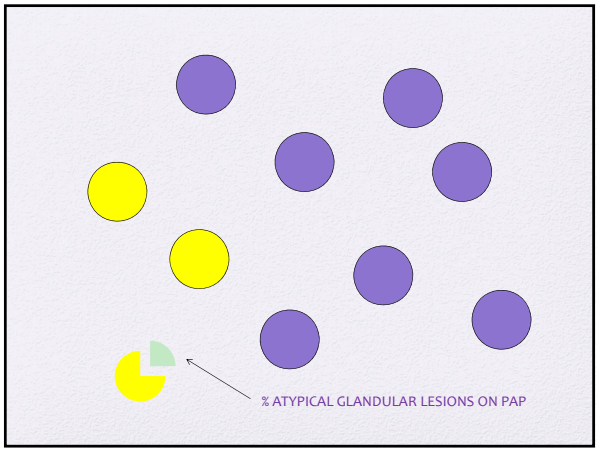
1. Design an approach to glandular lesions in your practice
2. Distinguish benign mimics from abnormal glandular cells
3. Apply criteria for diagnostic categories

# Background

- Pap test screening for SIL
- Reduction of cervical squamous cell ca

- Pap test: not great for glandular
  especially endometrial
- Increase in cervical adenocarcinoma





# Relevance Glandular Lesions

- Although only < 2% of cases
- Results in 80% headaches!

- Significant management difference
  - not a repeat Pap
  - referral – colp/gyn

# Bethesda Classification

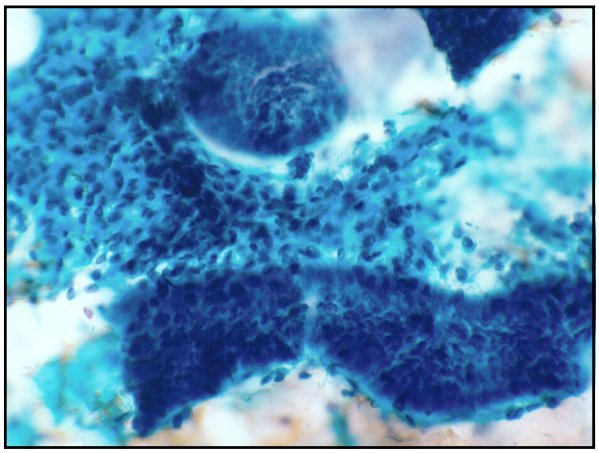
GLANDULAR ABNORMALITIES

| | NOS | Neoplastic | AIS | Adenoca |
|---|---|---|---|---|
| Endocervical | + | + | + | + |
| Endometrial | + | * | | + |
| Glandular Cells | + | + | | + |

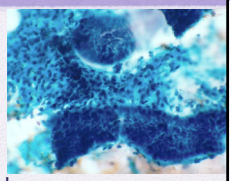
* For Ontario Guidelines, not Bethesda

# CASE 1

- 34 year old female
- Follow-up Pap test
- Post cone biopsy for HSIL
- LMP: day 10

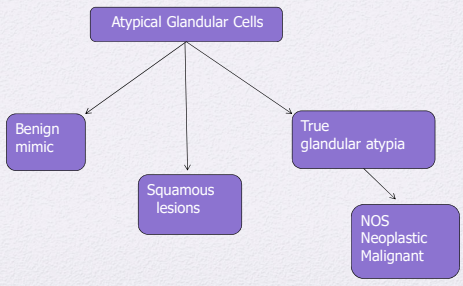


## Your diagnosis

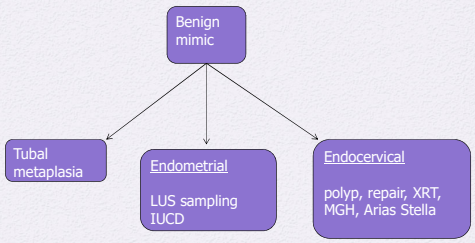


a) HSIL
b) AIS
c) Adenocarcinoma, endometrial
d) LUS sampling
e) Atypical endocervical cells, neoplastic

## Approach to Atypia



# Approach to Atypia



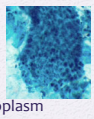

# Is There Glandular Atypia?

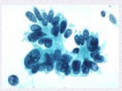
- 3 IMPORTANT CRITERIA benign vs. neoplastic

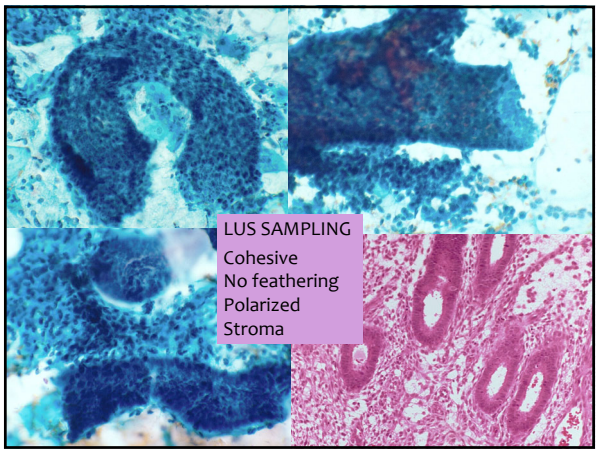
1. Irregular nuclear outline
2. Atypical single cells
3. Reduced cytoplasm amount (increased N/C)

# Diagnostic Criteria

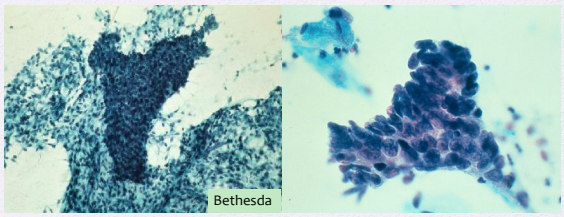
| LUS SAMPLING | AIS |
|---|---|
| • Honeycomb, overlapping | • Crowding, overlapping |
| • Sheets, glands | • Strips |
| - uniform, tightly packed | • Feathering |
| • Pseudostratification | • Rosettes |
| • Nuclear atypia | • Pseudostratification |
| • Small cells, scant cytoplasm | • Nuclear atypia (carrots) |
| • Biphasic - stroma | |







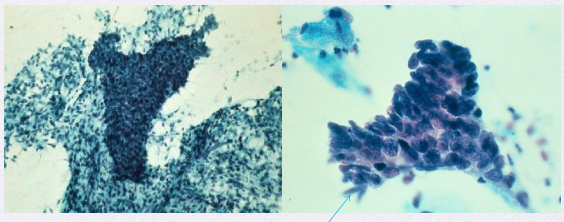

## Now you try




WHICH ONE IS LUS vs AIS?

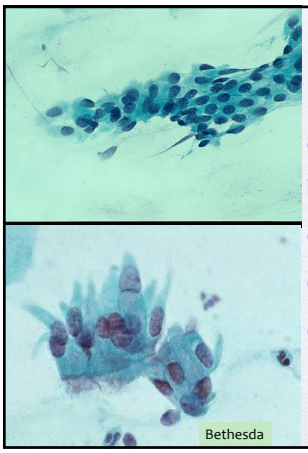
LUS

AIS



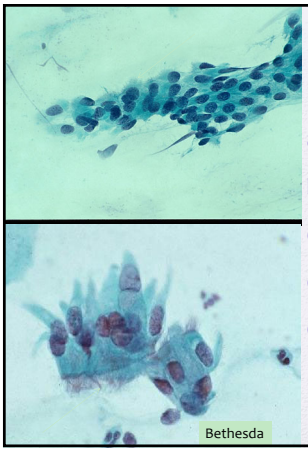
Spindled stroma
Organized gland
No feathering

Disorganized
Feathering, carrots
Nuclear atypia, variation




Now you try

a) HSIL
b) AIS
c) Tubal metaplasia
d) LUS sampling
e) Atypical endocervical cells, NOS




Now you try

a) HSIL
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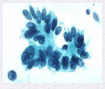
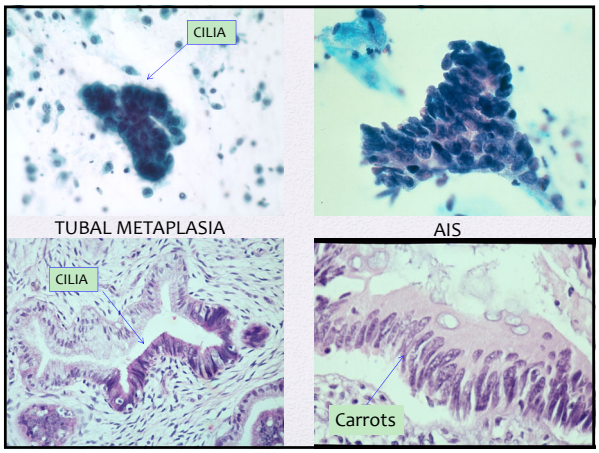
## Diagnostic Criteria

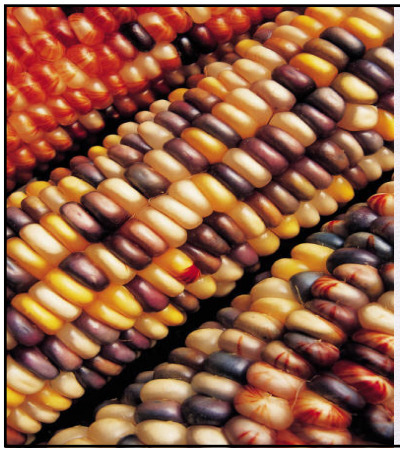
| TUBAL METAPLASIA | AIS |
|---|---|
| • Crowding, overlapping | • Crowding, overlapping |
| • Strips, groups | • Strips |
| • Cilia, terminal bars | • Feathering |
| | • Rosettes |
| • Pseudostratification | • Pseudostratification |
| • Nuclear atypia (rounder) | • Nuclear atypia (carrots) |






## Management

- LUS sampling → Routine screening
- Tubal metaplasia

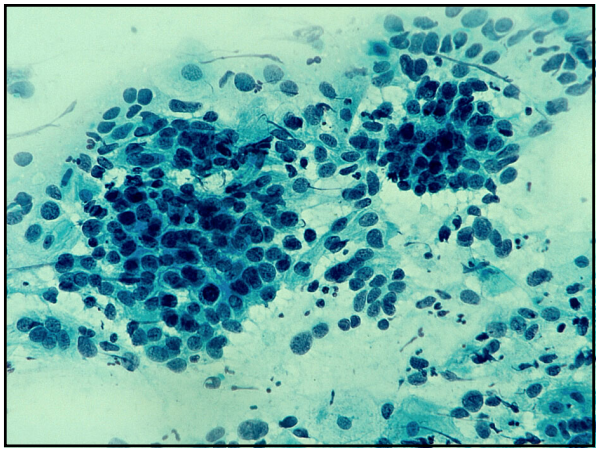


RULE IN A
BENIGN MIMIC

Remember
LUS sampling
Tubal metaplasia

## CASE 2

- 31 year old female
- Colposcopy Pap test
- Referred for abN Pap
- LMP: now day 15



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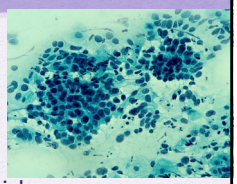

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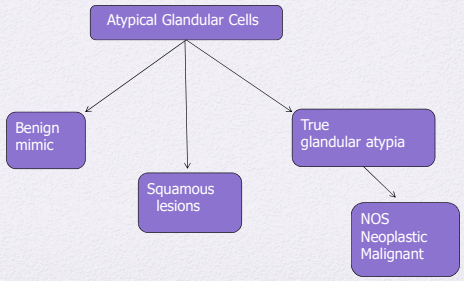
# Approach to Atypia

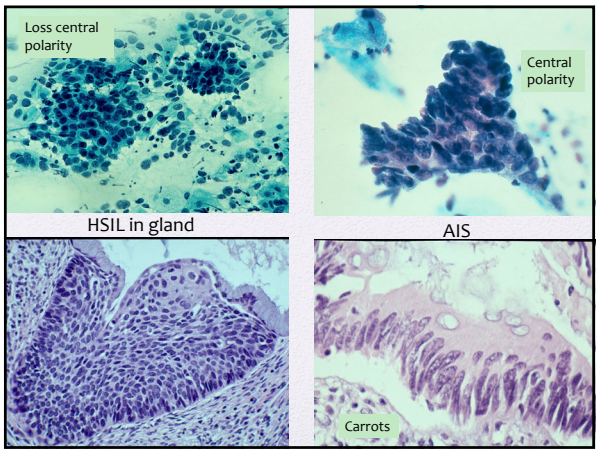


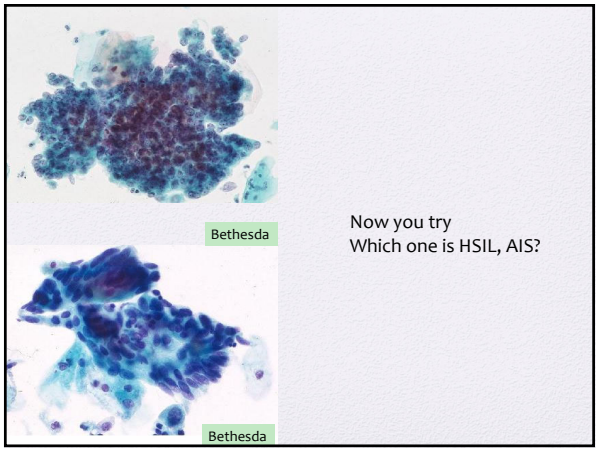

# Squamous Lesions

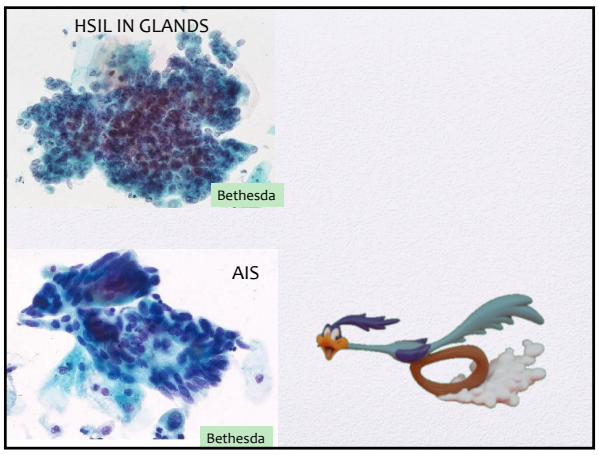
- Atypical glandular cells on Pap
  - 10-40% are HSIL on investigation
- HSIL involves endocervical glands
- Mix – squamous & glandular in group

# Diagnostic Criteria

| HSIL in glands | AIS |
|---|---|
| • Sheets, depth of focus<br>• Focal feathering<br>• Loss of central polarity<br>• Hard edge, dense cytoplasm<br>• Central nuclei<br>• Single HSIL background<br>• Beware: nucleoli | • Strips, rosettes<br>• Diffuse feathering<br>• Maintain central polarity<br>• Crowded columnar cells<br>• Basal carrot nuclei<br>• Nucleoli possible |


Loss central polarity
Central polarity
HSIL in gland
AIS
Carrots


Bethesda
Bethesda
Now you try
Which one is HSIL, AIS?


HSIL IN GLANDS
Bethesda
AIS
Bethesda

# Management

- LUS sampling
- Tubal metaplasia

→ Routine screening

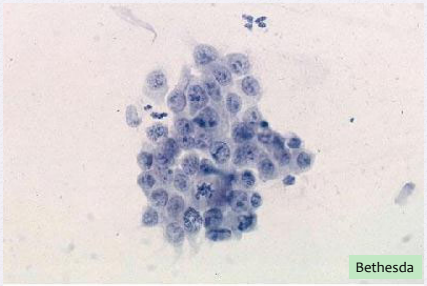
- HSIL

→ Colposcopy
- biopsy/ECC
- ablation/resection

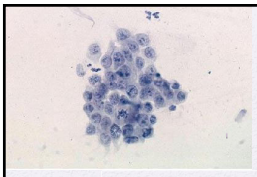
THINK SQUAMOUS

# CASE 3

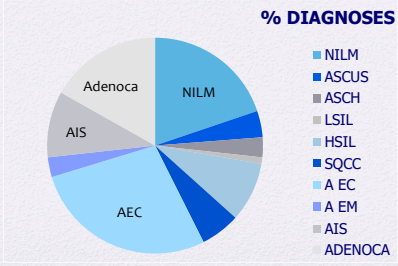
- 42 year old female
- Routine Pap test
- LMP: now day 20




WHAT IS YOUR DIAGNOSIS?



Negative F/U
Endocervical Repair




# Atypical Endocervicals

| NOS | NEOPLASTIC |
|---|---|
| • Atypia exceeds reactive or reparative changes<br>• Lack unequivocal features of AIS, adenoca<br>• Crowding, overlapping<br>• Increased N/C ratio<br>• Nuclear atypia | • Atypia like AIS, adenoca<br>• Falls short<br>- quantity (too few)<br>- quality (criteria) |

## Atypical EC NOS

- Examples:
  - XRT situation: too much atypia
  - Atypical repair
  - IUCD changes, but no IUCD

## Management

- Benign mimics → Routine screening
- HSIL → Colposcopy
- Glandular atypia → Colposcopy, EC/EM sample

NOS, neoplastic, AIS

## Summary

- Glandular atypia mimics
  - LUS sampling, tubal metaplasia
  - HSIL in glands
- Spectrum of glandular atypia
  - use criteria to classify (NOS, Neopl)
  - colposcopic/gyn referral in all

## Take Home Pearls

When considering glandular atypia:

- Rule in benign mimics
- Think squamous!
- Respect (don't ignore) atypia

QUESTIONS?