



Basic Colposcopy Workshop 2010 Pathology of abnormal smears and CIN

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Session's objectives:

- Transformation zone
- Normal and abnormal histology and cytology
- Bethesda system and management of abnormal cytology

Cytopathology

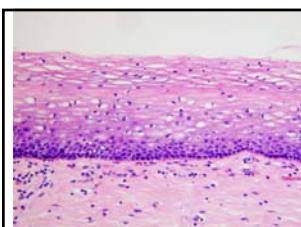


- The pap smear / Liquid-based cytology is a screening tool, to find a change or abnormality in the cervix *before* it becomes cancerous.

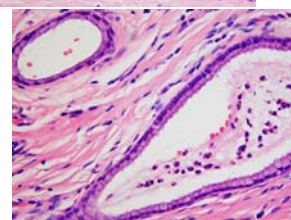
Cytology Specimens

Each specimen consists of a **sample** AND a **request form**.

- The **sample** must be well-labeled, properly packed.
- The **request form** must be filled in as completely as possible.

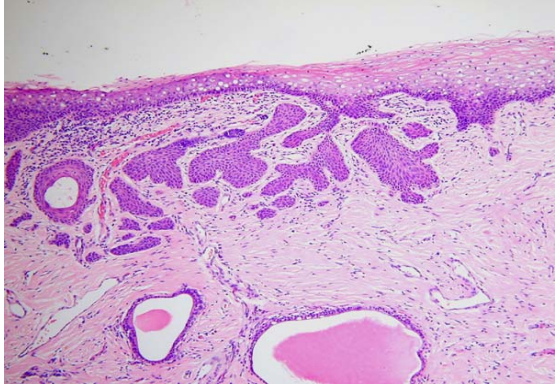


Ectocervix –
Stratified Squamous
Epithelium

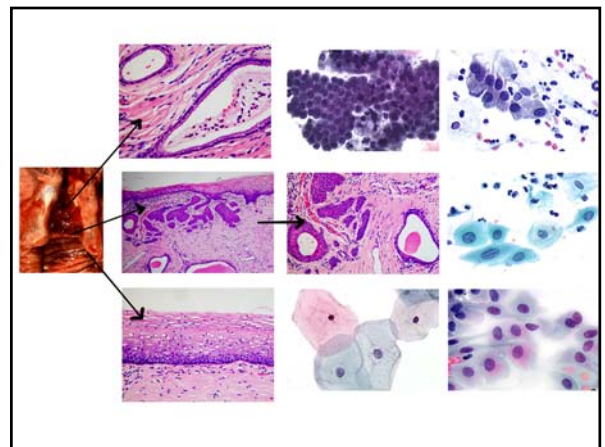
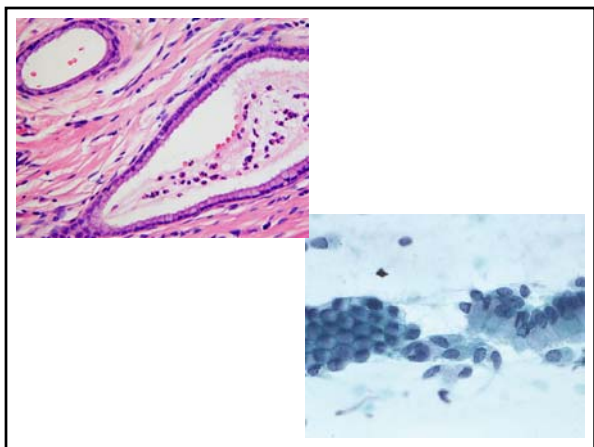
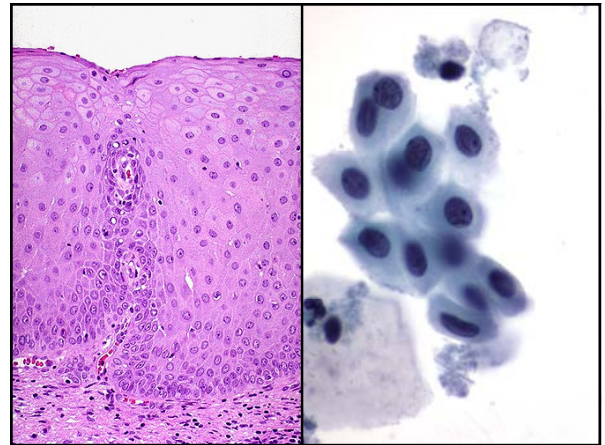
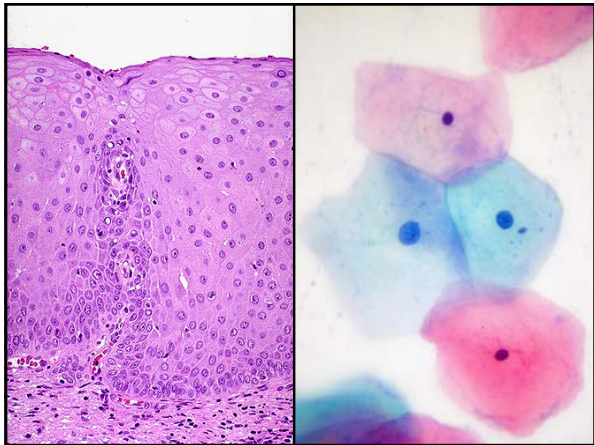
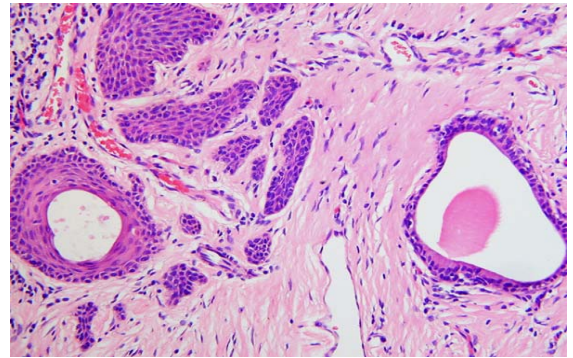


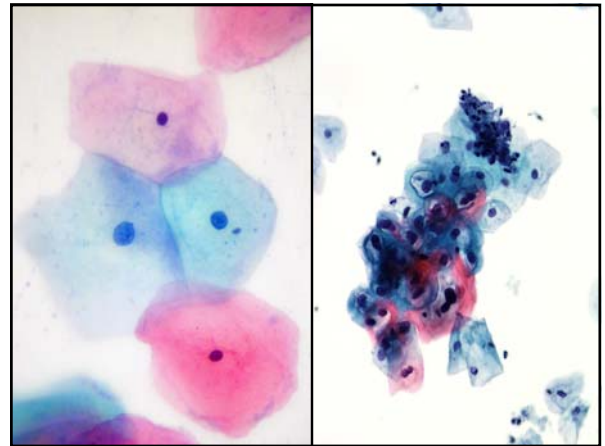
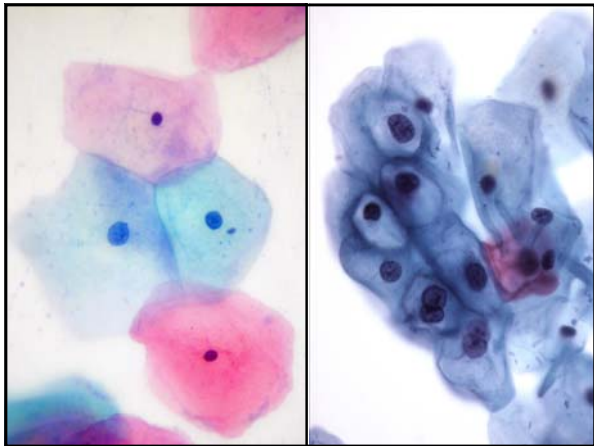
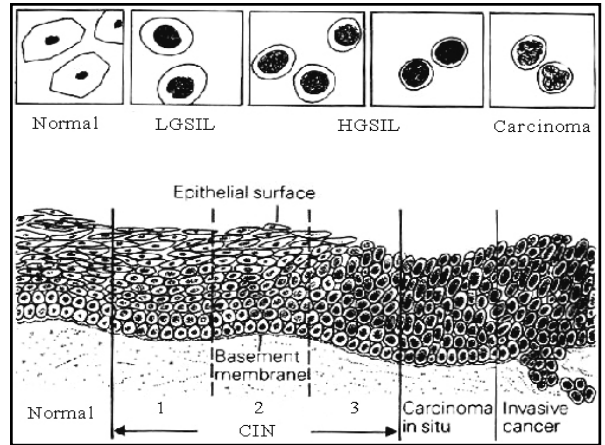
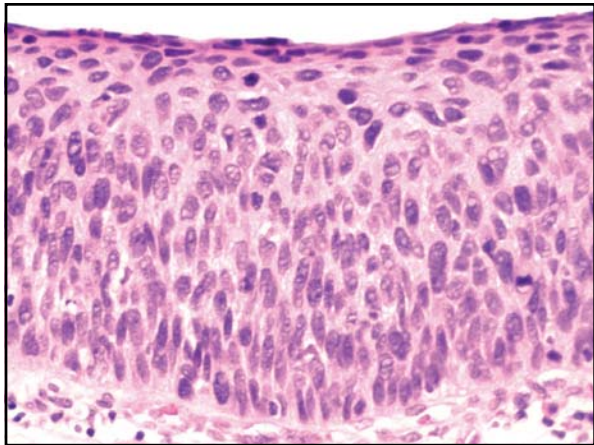
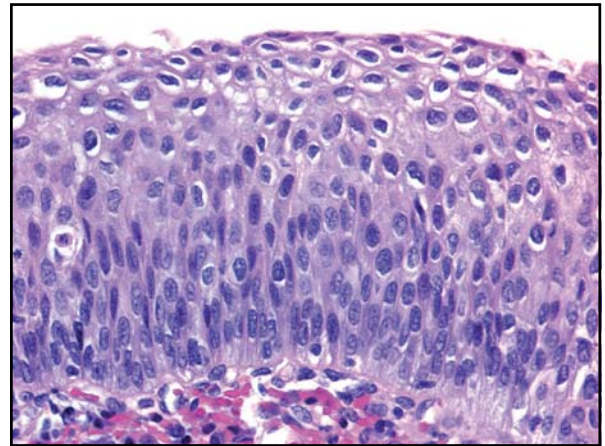
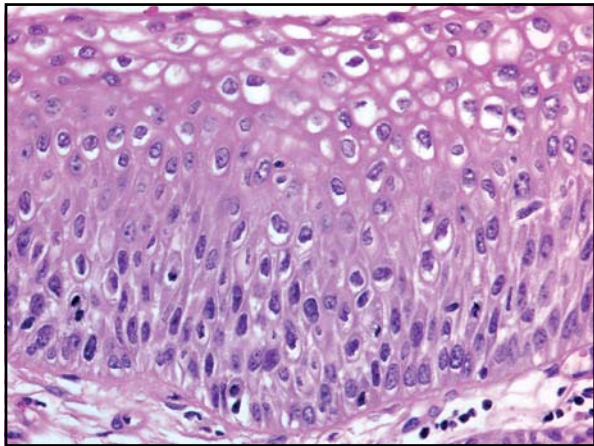
Endocervix –
Mucosal Surface
and Glands lined by
Mucinous type
Simple Columnar
Epithelium

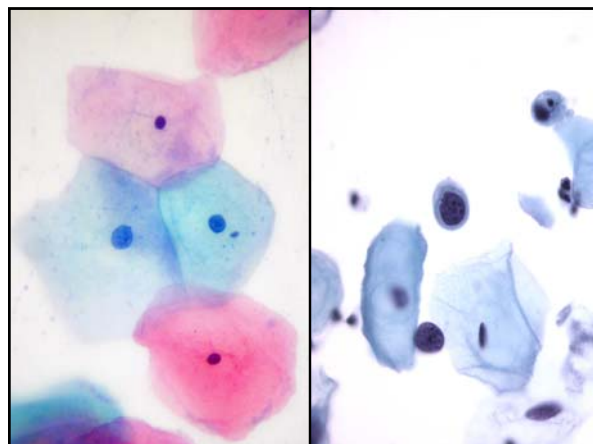
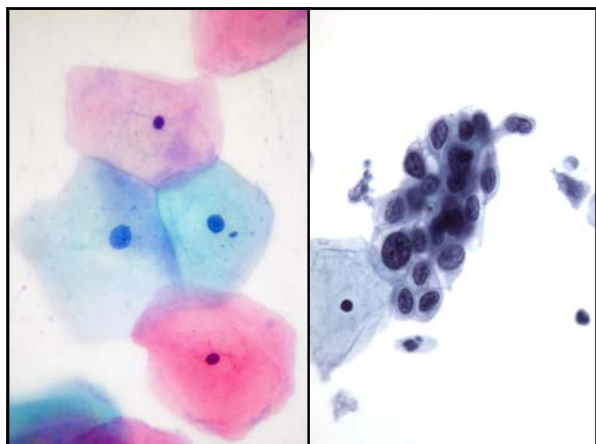
Transformation zone of cervix



Transformation zone of cervix –
Glandular epithelium may undergo squamous metaplasia







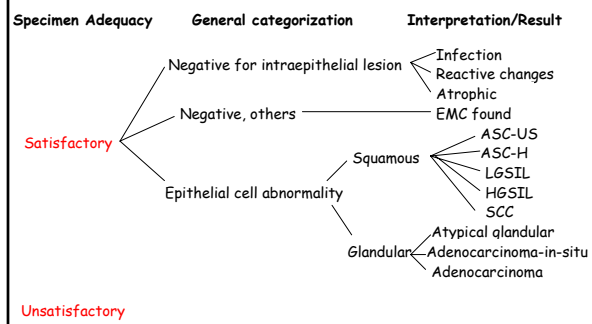
The Bethesda System (TBS)

- System for reporting Pap test (workshop sponsored by the National Cancer Institute in 1998).
- To standardize terminology.
- To increase communication between health care professionals and cytopathologists.

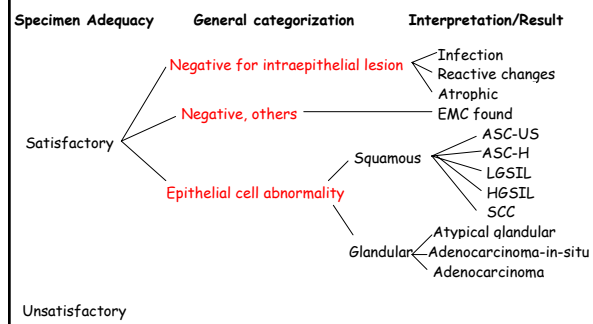
The Bethesda System (TBS)

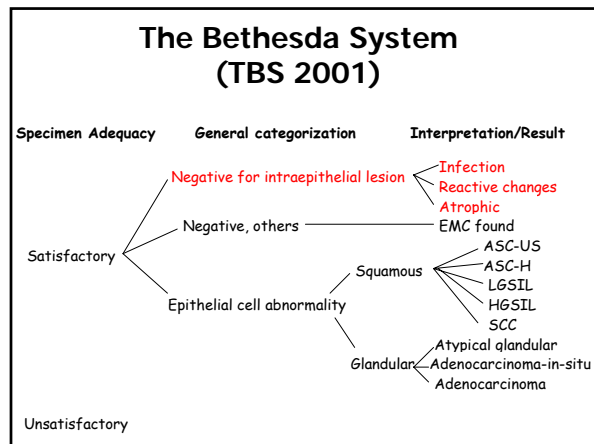
- The latest version was developed at the 3rd workshop which held at 2001.
- The system of reporting Pap test consists of 3 parts:
 1. Specimen adequacy
 2. General categorization
 3. Interpretation/Results

The Bethesda System (TBS 2001)



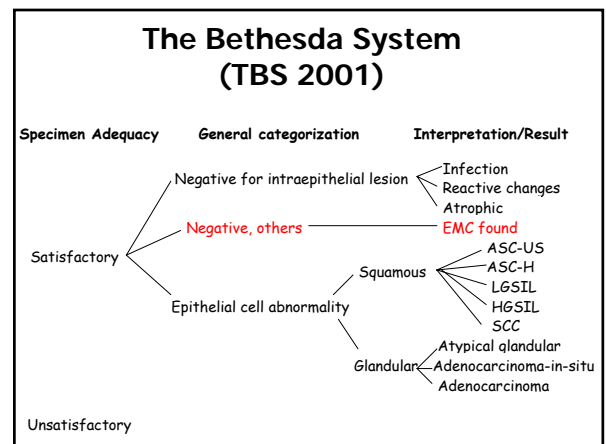
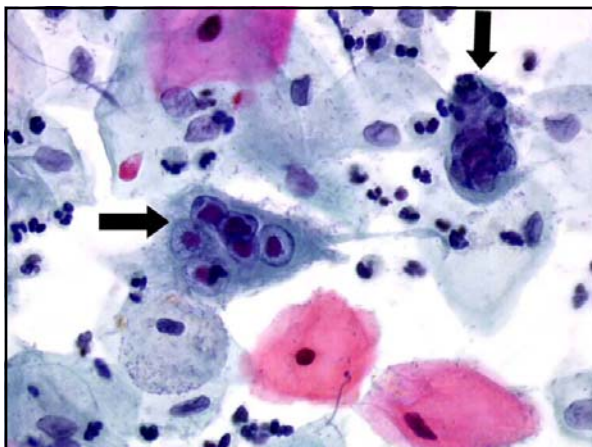
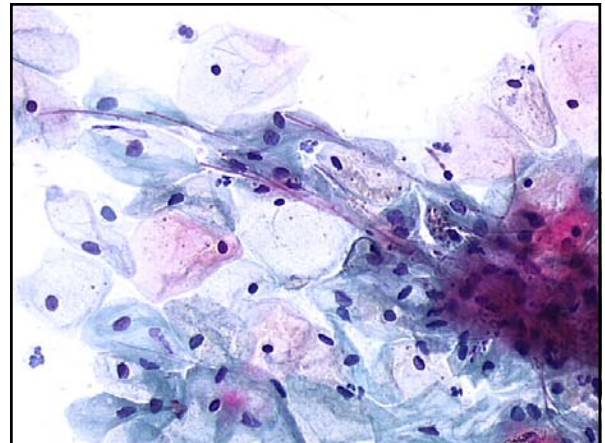
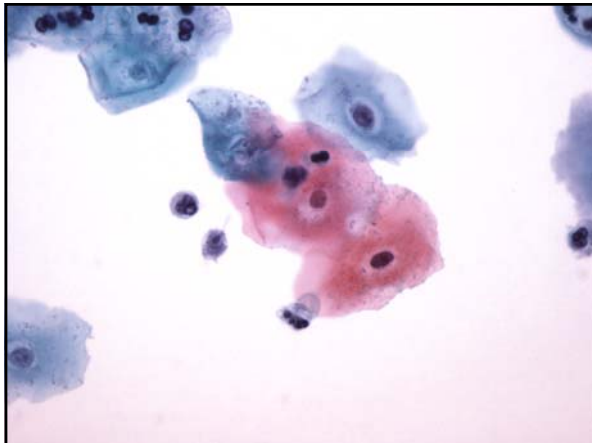
The Bethesda System (TBS 2001)





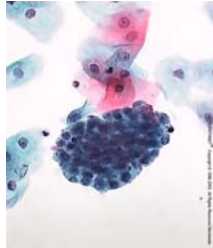
Atypical cells due to inflammation

- 'Abnormal Pap smear' often related to infection or inflammation.
- Yeast, herpes, trichomonas, recent sexual activity, or use of vaginal preparations.
- Treat for an infection, and repeat smear in 4 - 6 months.

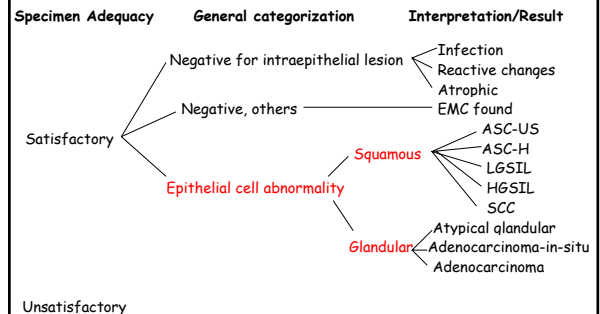


Endometrial cells

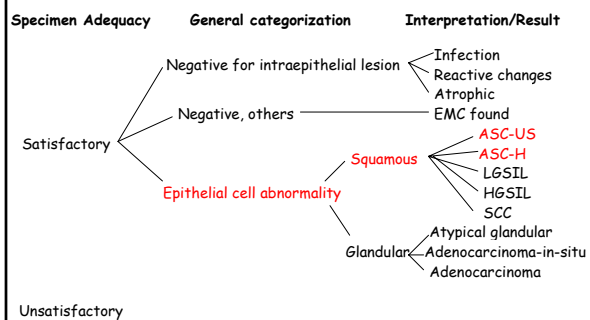
- normal/abnormal endometrial cells in women >40 years



The Bethesda System (TBS 2001)



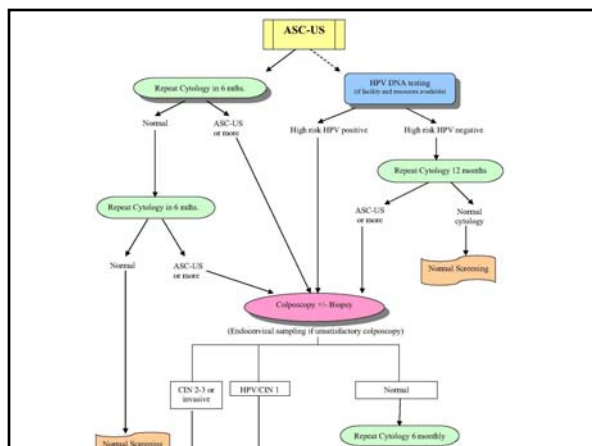
The Bethesda System (TBS 2001)



Atypical Squamous cells (ASC)

2001 Bethesda System:

- ASC-US (atypical squamous cells of undetermined significance)
- ASC-H (atypical squamous cells, cannot exclude high grade lesions)



ASC-H

- ASC-H represents 5 – 10% of all ASC cases.
- The positive predictive value (48%) for a CIN 2-3 histologic diagnosis is significantly higher than that of ASC-US (13%).

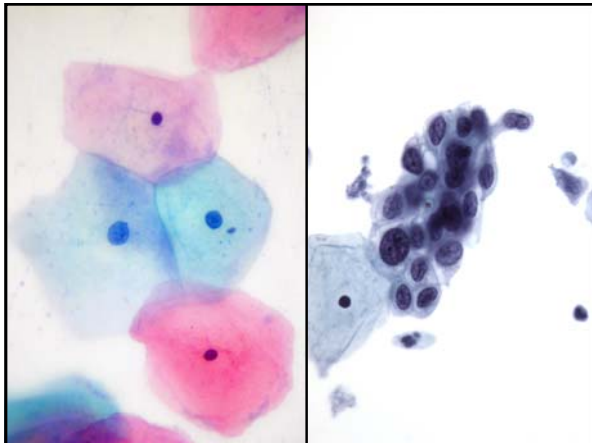
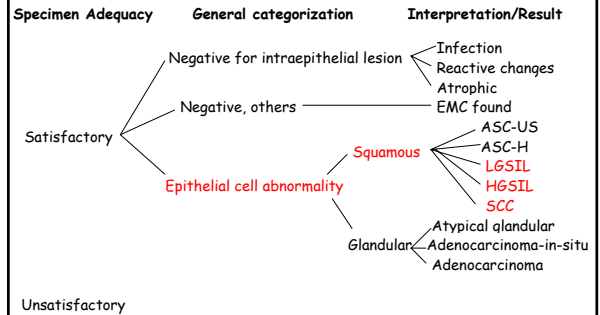
Genest 1998

ASC-H

- Women with ASC-H pap smear should be referred for colposcopy.
- If no lesion is found on colposcopy, the cytologic and histologic results should be reviewed.
- If negative on review, repeat Pap smear at 6 and 12 months, or HPV DNA testing at 12 months is recommended.

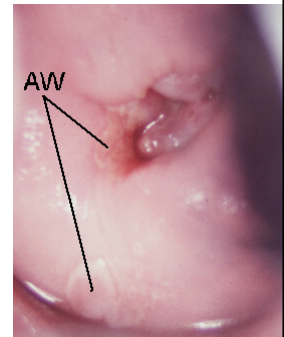
Wright 2002

The Bethesda System (TBS 2001)



Smears with SIL - management

- Confirm the diagnosis by direct examination
- Assess extent of disease
- Detection of endocervical involvement
- Confirm the diagnosis by performing biopsy

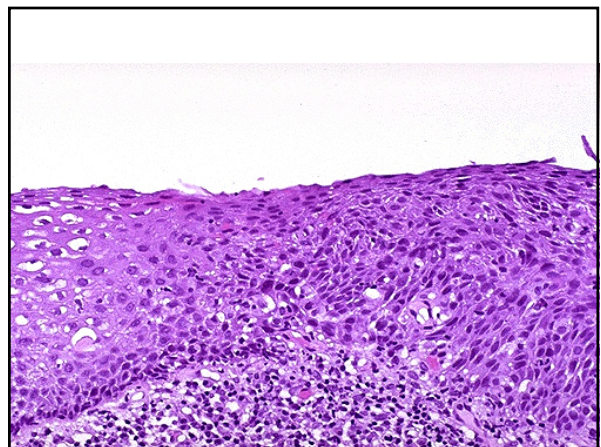


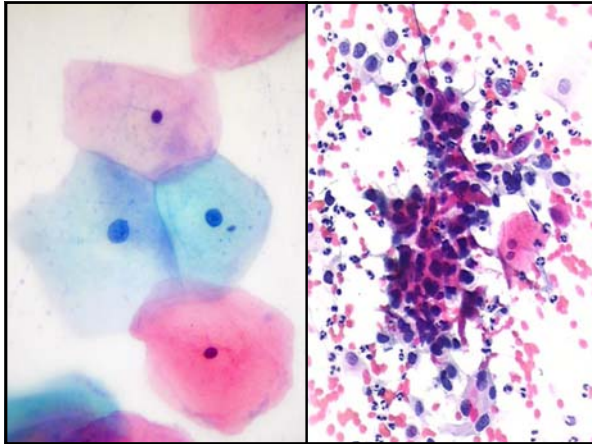
Biopsy of the abnormal lesions

Sample Instrument for Biopsy During Colposcopy



The small sharp teeth allow for precision

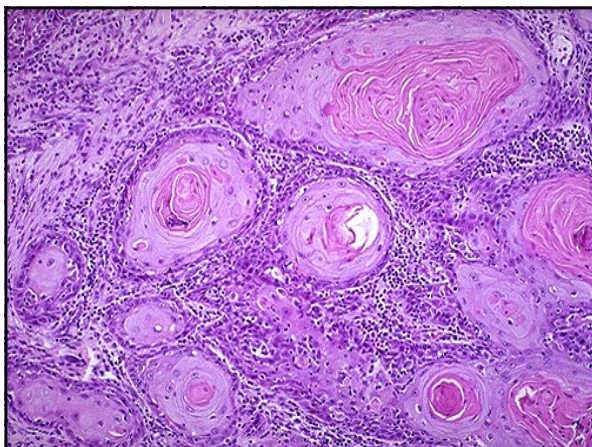




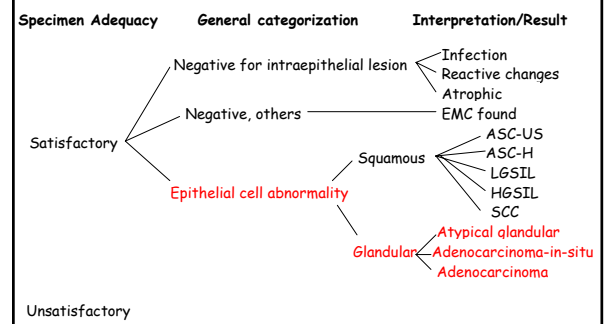
Smears with Ca - management

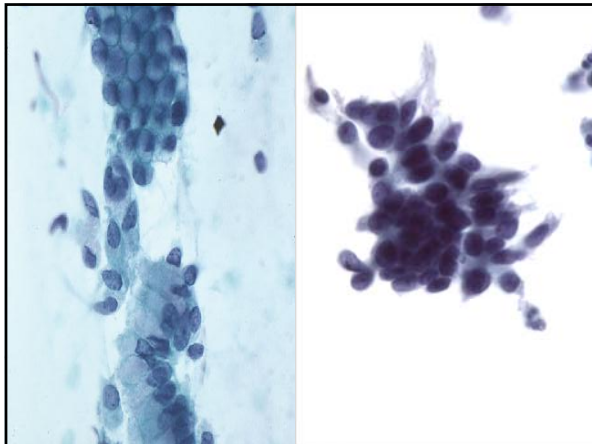
Colposcopy to:

- confirm the diagnosis by direct examination
- confirm the diagnosis by performing biopsy
- to determine severity and extent of the disease to aid planning further treatment



The Bethesda System (TBS 2001)





Glandular Abnormalities

- In the 1998 classification – **AGUS** (atypical glandular cells of undetermined significance).
- In 2001, replaced by **AGC** (atypical glandular cells).
- Changes fall between benign reactive process and AIS/Adenoca.

Atypical Glandular cells

Atypical endocervical

- 50% have a significant lesion.

Atypical endometrial

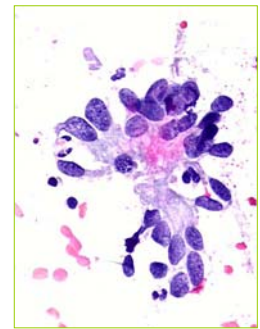
- Endometrial sampling recommended.

Not otherwise specified (NOS)

- Refer colposcopy (as atypical endocervical).

Adenocarcinoma in-situ

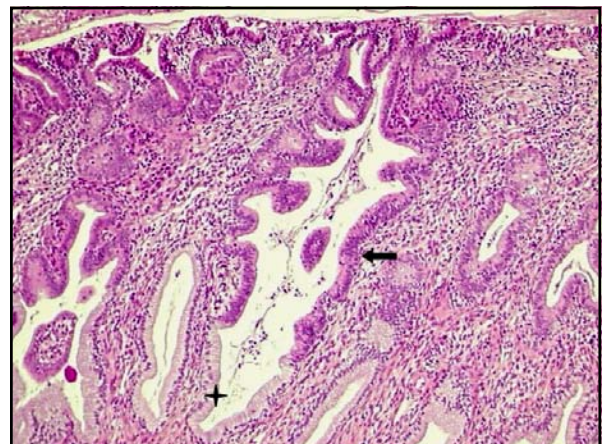
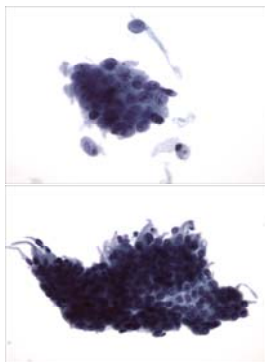
- Precursor of invasive adenocarcinoma.
- An co-existing early invasive adenocarcinoma in 10-45%.
- Also CIN in 50-95%.



Smears with AGC/AIS - management

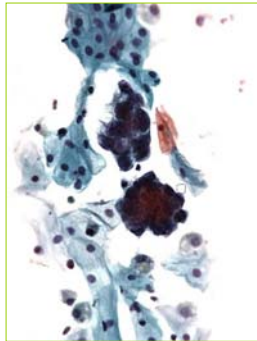
Colposcopy to:

- Detection of any visible lesion by direct examination
- Assess extent of disease
- Endometrial sampling
- Confirm the diagnosis by performing biopsy



Adenocarcinoma of Cervix

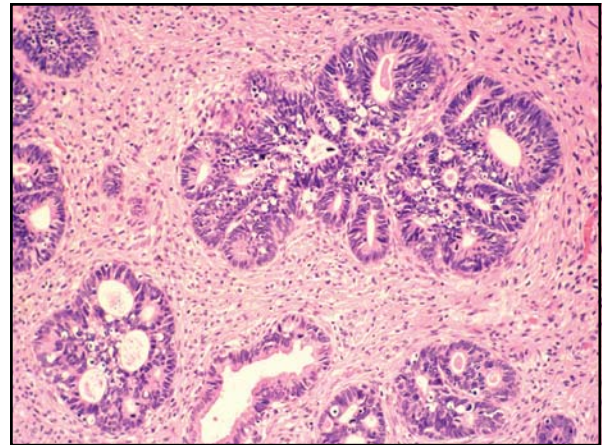
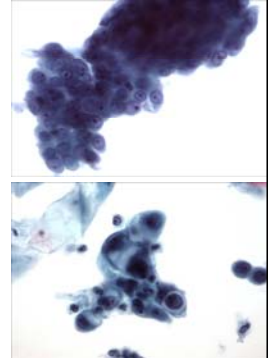
- 15% to 25% of cervical carcinomas.
- HPV (esp 16 and 18).



Smears with Adenoca - management

Colposcopy to:

- confirm the diagnosis by direct examination and by performing biopsy
- endometrial sampling
- to determine severity and extent of the disease to aid planning further treatment



Session's objectives:

- Transformation zone
- Normal and abnormal histology and cytology
- Bethesda system and management of abnormal cytology