

Q. Enlist Gestational Trophoblastic disease.

Q. Tabulate Difference b/w both types of hydatiform mole.

Q. Tabulate " b/w complete and partial mole.

Q. Enlist Gestational Trophoblastic Disease:-

Hydatidiform → Complete

→ Partial

Difference

Complete Mole

Partial Mole

46xx / 46xy

← ① →

69xxx / xyy

Diffuse Trophoblastic Proliferation ② → Focal T. proliferation

Diffuse Villi Swell ← ③ → Focal villi swell

Thecalutien cyst present ← ④ → Rare

Embryonic tissue absent ← ⑤ → Embryonic Tissue ✓

Fetal RBC absent ← ⑥ → Fetal RBC ✓

Molar gestation ← ⑦ → Mixed abortion

Malignancy 5-10% ← ⑧ → Rare

Q. classify uterine malignant tumor?

Uterine Malignant Tumor

Endometrium

Myometrium

Benign : Endometrium-Polyp Benign : Leiomyoma

Malignant : Endometrial CA Malignant : Leiomyosarcoma

Q. Write down the pathogenesis of endometrial CA?

Endometrial CA

Normal endometrium

↓ (Estrogen)

Benign endometrial hyper-plasia

↓ (PTEN)

Mutation

↓

Endometrial Intra-epithelial
Carcinoma

(PI3K exon 9)

↓

Low grade

(TP53 exon 20)

↓

High grade

↓ MMR

Endometrial CA

Q - Tabulate

Q - Difference b/w Type-1 & Type-2
Endometrial Carcinoma

Type-01

Type-02

55-Years - 65 years	- (1) -	65-75 year
Associated - Hyper estrogen	- (2) -	Not
Slow growing	- (3) -	Rapid
Good prognosis	- (4) -	Poor prognosis
Usually endometrioid	- (5) -	Serous + clear cells
Atypical hyper-plasia	- (6) -	No
PTEN-Mutation	- (7) -	Mullerian Tumor
KRAS, FGF2, TP53	- (8) -	Over-activation of TP53, cyclin E
↑ Estrogen > Obesity	- (9) -	Atrophy
Hypertension, Diabetes		
Diploid	- (10) -	Aneuploid
Stage I/II	- (11) -	Stage III/IV
Low grading	- (12) -	High grading
85% survival	- (13) -	43% survival

A 45-year old female presented with abnormal uterine bleeding. Carreling's revealed endometrial hyperplasia.

- Q- Define Endometrial hyperplasia :
- Q- Give it's Etiology
- Q- Give difference b/w Non-atypical + Atypical

Define:-

- ↑ Proliferation - Endometrial gland
- ↑ Ratio of Gland to stroma

Etiology :-

- ↑ Estrogen ✓
- Polycystic ✓
- Obesity
- Diabetes Mellitus

① Non-Atypical

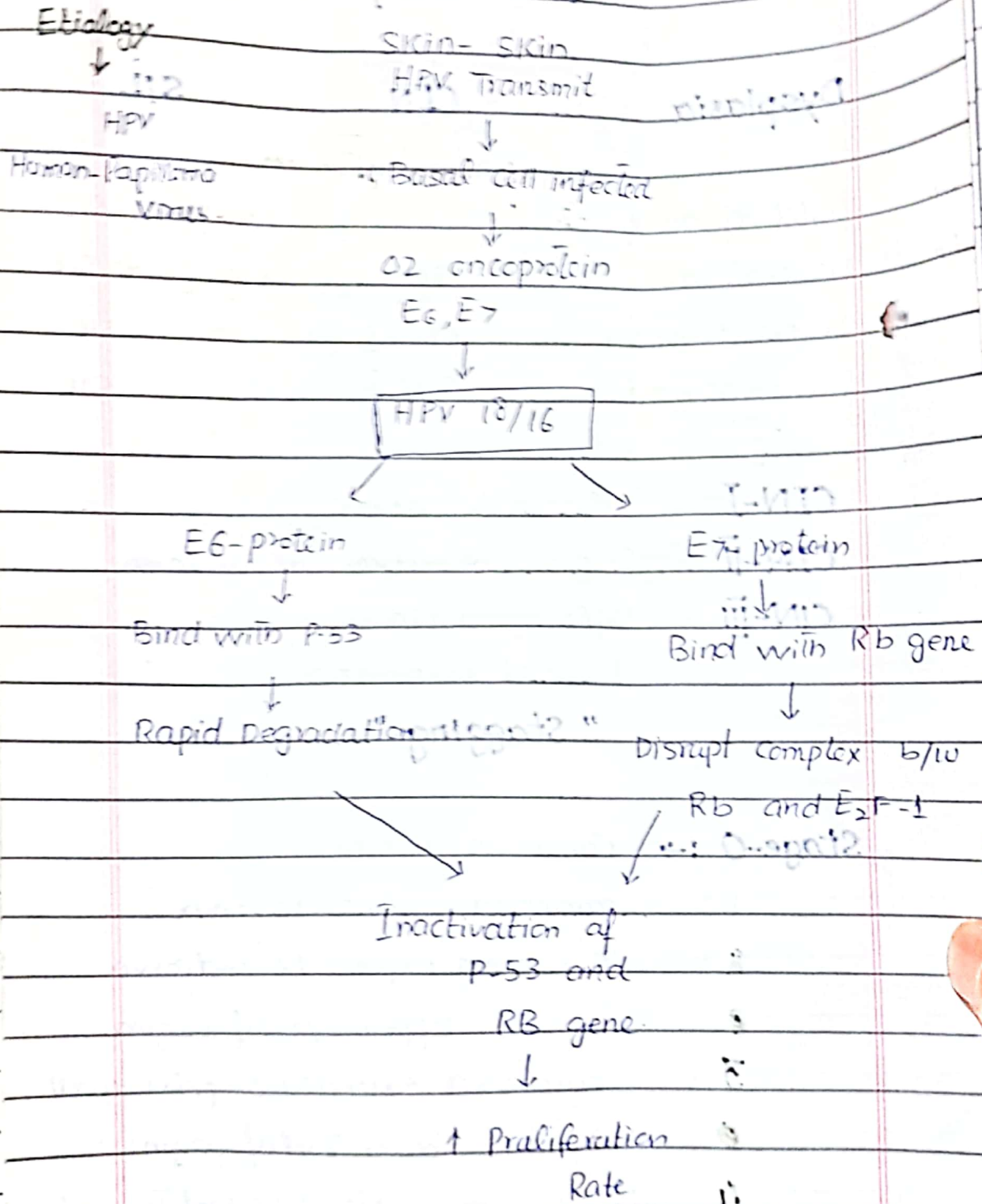
Atypical

- | | |
|-------------------------------|-----------------------------|
| ① ↑ No of glands | Rare |
| ② ↑ size of glands | ↑ N/C ratio |
| ③- Gland crowding + branching | Nucleus enlarge |
| ④- Glands back-to-back | Irregular size |
| ⑤- Little stroma | Irregular shape |
| ⑥- Abundant mitotic figure | Thick nuclear membrane |
| ⑦ Uniform nucleus size | Prominent nucleoli |
| ⑧- Abundant cytoplasm | Stratification (2-3 layers) |
| ⑨ Round nucleoli | |
| ⑩- Tall columnar cells | Scanty cytoplasm |



Discuss - etiology
Q. Pathogenesis of Cervical Intra-epithelial Neoplasm (Cervical carcinoma)

Pathogenesis



Q. A 40 year female with vaginal discharge was advised PAP smear which shows full thickness dysplasia of cervical epithelium.

How will you classify in term of CIN & SIL

Bethesda system

	Dysplasia	CIN	SIL
K.A	Mild dysplasia $\frac{1}{3}$ of cervical epithelium	CIN-I	Low-grade SIL
PA	Moderate dysplasia	CIN-II	High-grade SIL
	Severe dysplasia	CIN-III	" SIL
↓	Carcinoma in situ	CIN-III	" SIL

Diffuse Atypia ✓
loss of maturation ✓

CIN-I → Keratinocytic atypia

CIN-II → Progressive atypia in all layers

CIN-III → Diffuse atypia

Loss of maturation.

" Staggering "

Stage-0 → Carcinoma in situ

1 - carcinoma confined to cervix

2 - carcinoma expand beyond cervix

3 - involve upper 2/3 of vagina

3 - carcinoma extended on pelvic wall

4 - involve lower 3rd of vagina

4 - carcinoma extend beyond true-pelvis

5 - Involve mucosa of bladder

or rectum

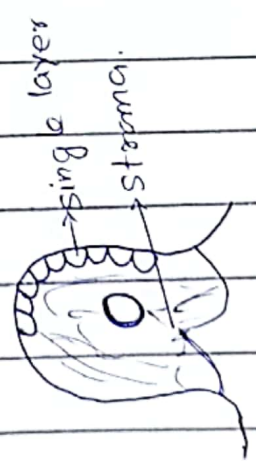
* PAP smear.

Q. Give morphology of cyst-adenoma?

Serous Cyst-adenoma

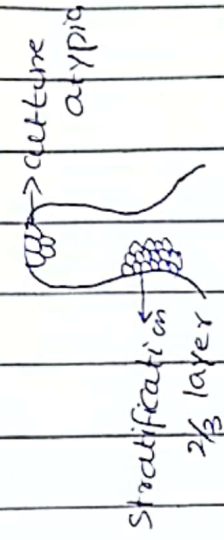
Benign

- Smooth glistening cyst-wall with no epithelial thickening ①
- Small papillary projection
- Cyst lined by columnar epithelium ②
- Absent cilia ③
- Papillae present ④
- Well-differentiated ⑤
- No-stromal invasion ⑥



Border-line

- Stratification of epithelium
- Mild nuclear atypia
- ↑ No of papillae projection
- Stromal Micro-invasion
- 20-50 age
- Bilaterally
- Prognosis 100%



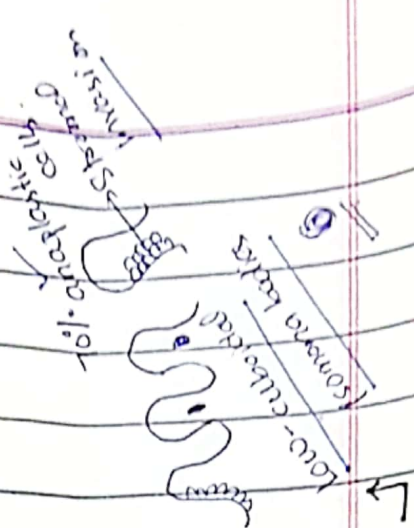
① 45 year old woman with adnexal mass right. A 12 cm cystic mass with solid area was removed arising from right ovary. Draining pus.

Histology → cyst wall lined columnar epithelium stratified
 → Hyperchromatic nuclei
 → Psammoma-bodies. * Diagnosis * Morphology.

Serous cystadenocarcinoma

Malignant

- Irregular Tumor, Necrosis
- Complex papillary arrangement
- Stromal invasion
- Stratification
- Psammoma-bodies
- 40-70
- Bilaterally
- 70% Prognosis



Q-Classify Ovarian Tumor?

Ovarian Tumors

Epithelial Tumor

Serous :-

Benign → Cystadenoma

Border-line → (serous border line)

Malignant → Adeno CA

Mucinous :-

Benign → (cystadenoma)

Border-line → (Mucinous border line)

Malignant → (Adeno-carcinoma)

Endometrioid :-

Benign

Border-line

Malignant

Clear cell Tumor :-

Benign

Border-line

Malignant

Transitional cell Tumor

Epithelial - stromal :-

(Adeno-carcinoma)

Malignant

Sex-cord Stromal Tumor:-

- ②- Granulosa Tumors
- ①- Fibroma.

Germ-cell Tumors:

- ③ Teratoma → Mature
Immature
Mono-dermal
- ④ 1) Dysgerminoma
- ② Yolk-sac tumor
- ① Mixed-germ cell Tumor

Kruken-Berg Tumor:-

* Metastatic Tumor

Colonic

MC's

Gastric

Breast

Q. A 45 year old Female developed a peanut sized Nodule in an mid-line lapotomy scar, which becomes painful during menstrual period. The excised nodule consist of normal looking endometrial tissue with glands and stroma.

Q. Enumerate the theories responsible for such lesion.

Theories of endometriosis:-

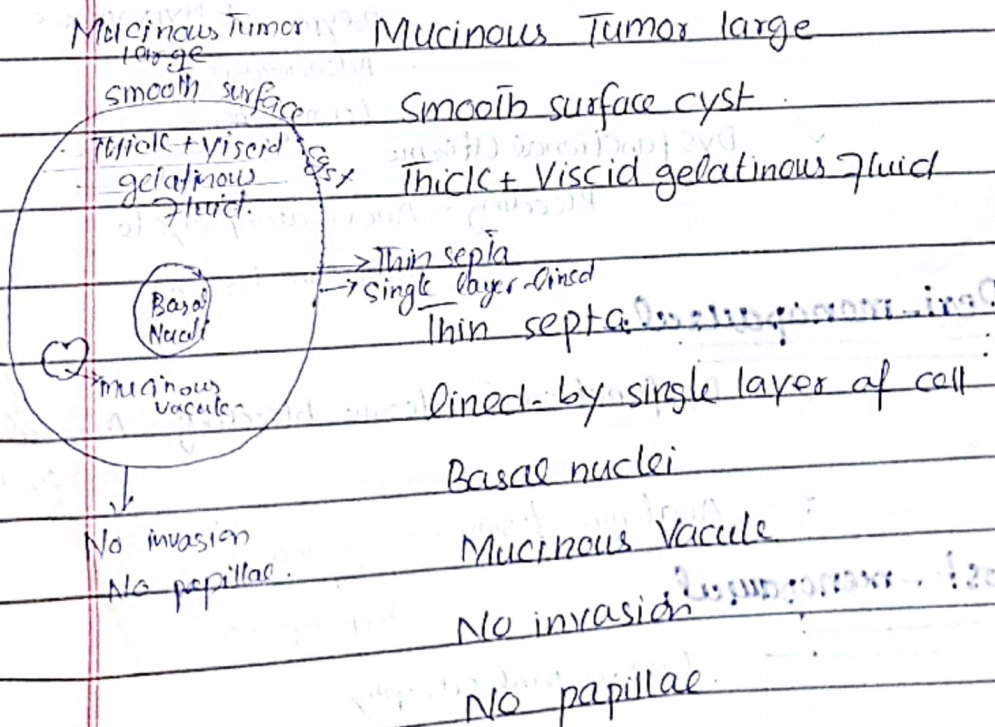
Presence of ectopic endometrial tissue at a site out of uterus

- ① Regurgitation Theory
- ② Benign metastasis Theory
- ③ Metaplastic Theory
- ④ Extra-uterine stem-cell Theory (EUSCT)

Q. Give Morphology of Mucinous cystadenoma?

Mucinous Cystadenoma:

Morphology :-



Q. A 30 year-old Married woman came to OPD with history of Pelvic pain, prolonged and excessive menstrual bleeding.

- Tabulate the probable causes of excessive menstrual bleeding.

Causes of abnormal Uterine bleeding by age group.

Pre-puberty :-

- Precocious puberty ✓
- Hypothalamic
 - Pituitary
 - ovarian origin

Adolescence :-

- Anovulatory cycle ✓
- A Coagulation disorder ✓

Reproductive age :-

- ✓ Complication of pregnancy - Abort
Trophoblastic disease
Ectopic pregnancy
- ✓ Anatomic lesion - carcinoma
Polyps E-Hyperplasia
Adenomyosis
Leiomyoma
- ✓ Dysfunctional Uterine Bleeding - Anovulatory cycle
Anatomic lesion

Peri-menopausal :-

- ✓ Dysfunctional Uterine bleeding - Anovulatory cycle
- ✓ Anatomic lesion - carcinoma
Polyps
hyper-plasia

Post-menopausal :-

- Endometrial atrophy
- ✓ Anatomic lesion - carcinoma
Polyps
hyper-plasia

Q. Give Morphology of Teratoma?

Mature

Gross :-

- ① → Round Tumor, oval
- ② → Freely Movable
- ③ → Grey-white
- ④ → Multi-ocular

Micro-scopy

- ① → Cyst filled with sebaceous gland
- ② → Stratified Squamous Epithelium
- ③ → Hair follicles
Cartilage
Bone
Neuroectodermal tissue.

Immature

Gross

- ① → Large Round, Tumor, oval
- ② → Solid mass - soft
- ③ → Dark brown

Microscopy.

- ① → Rosette tubules
- ② → Immature cartilage skeletal muscle.
- ③ → Neuroectodermal elements