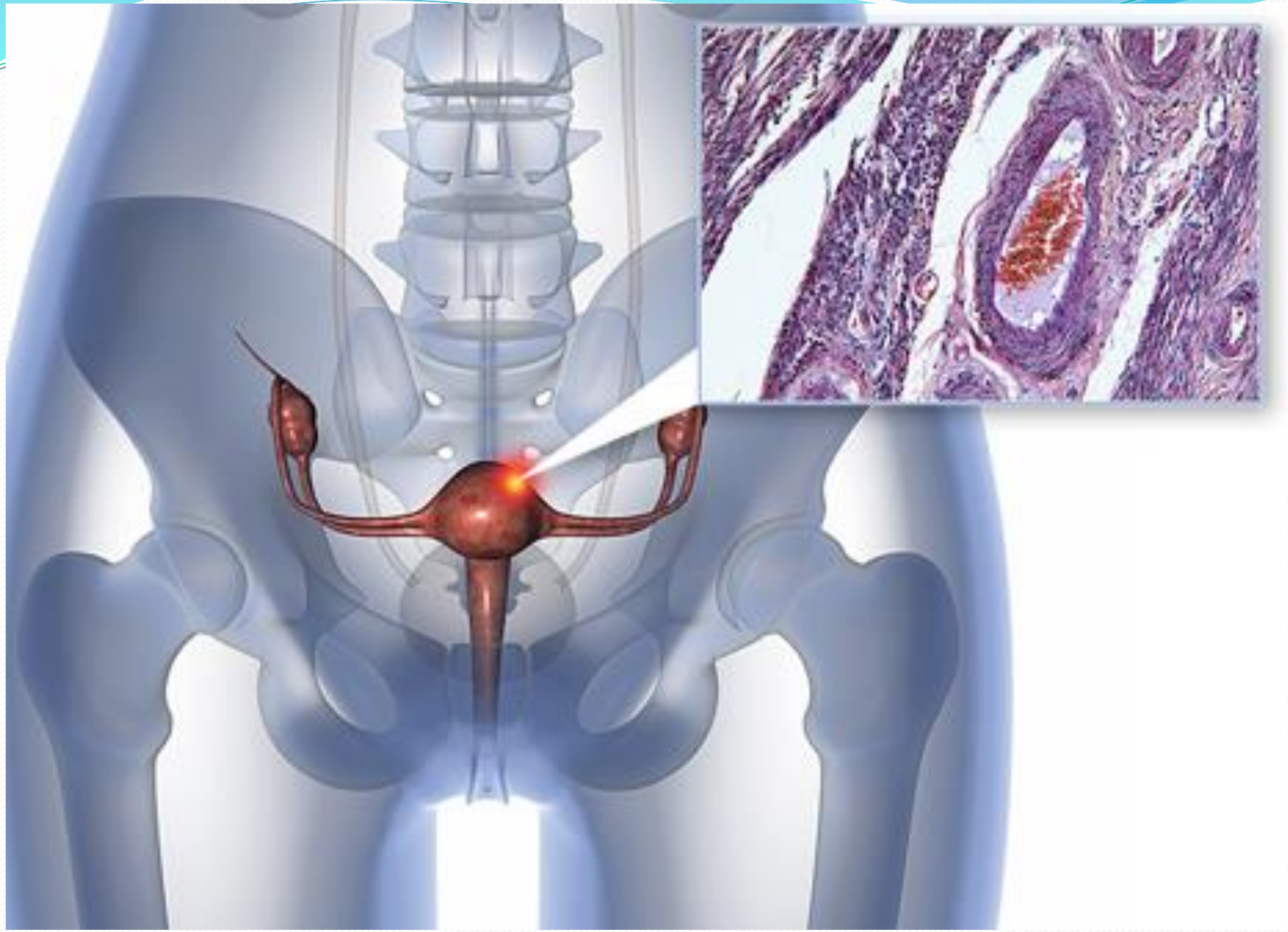
Endometrial Hyperplasia



Endometrial Hyperplasia:

Excessive proliferation of endometrial glands and to less extent endometrial stroma.

Due to excessive oestrogen stimulation.

Its significance progression to carcinoma.

25% of endometrial cancer, had a history of hyperplasia.

Classification of endometrial hyperplasia:

1- Simple H. Without atypia:

Increased no. Of glands & normal architecture.

90% regress , 1% progress to CA.

2 - Complex H. Without atypia:

Crowded irregular glands.

80% regress ,3% progress to CA.

3 - Simple H. With Atypia:

With cytological atypia (nuclei more prominent & nuclear pleomorphism.

4 - Complex H. With atypia.

Patho-physiology:

Endogenous oestrogen unapposed by progesterone

PCOD.

Obesity.

Tumours (granulosa cell tumour).

Medications: Tamoxifen.

Late menapause.

Presentation:

Post menapausal bleeding.

Heavy menstrual bleeding.

Diagnosis:

History & Physical exam.

Investigations: TVUS: endometrial thickness.

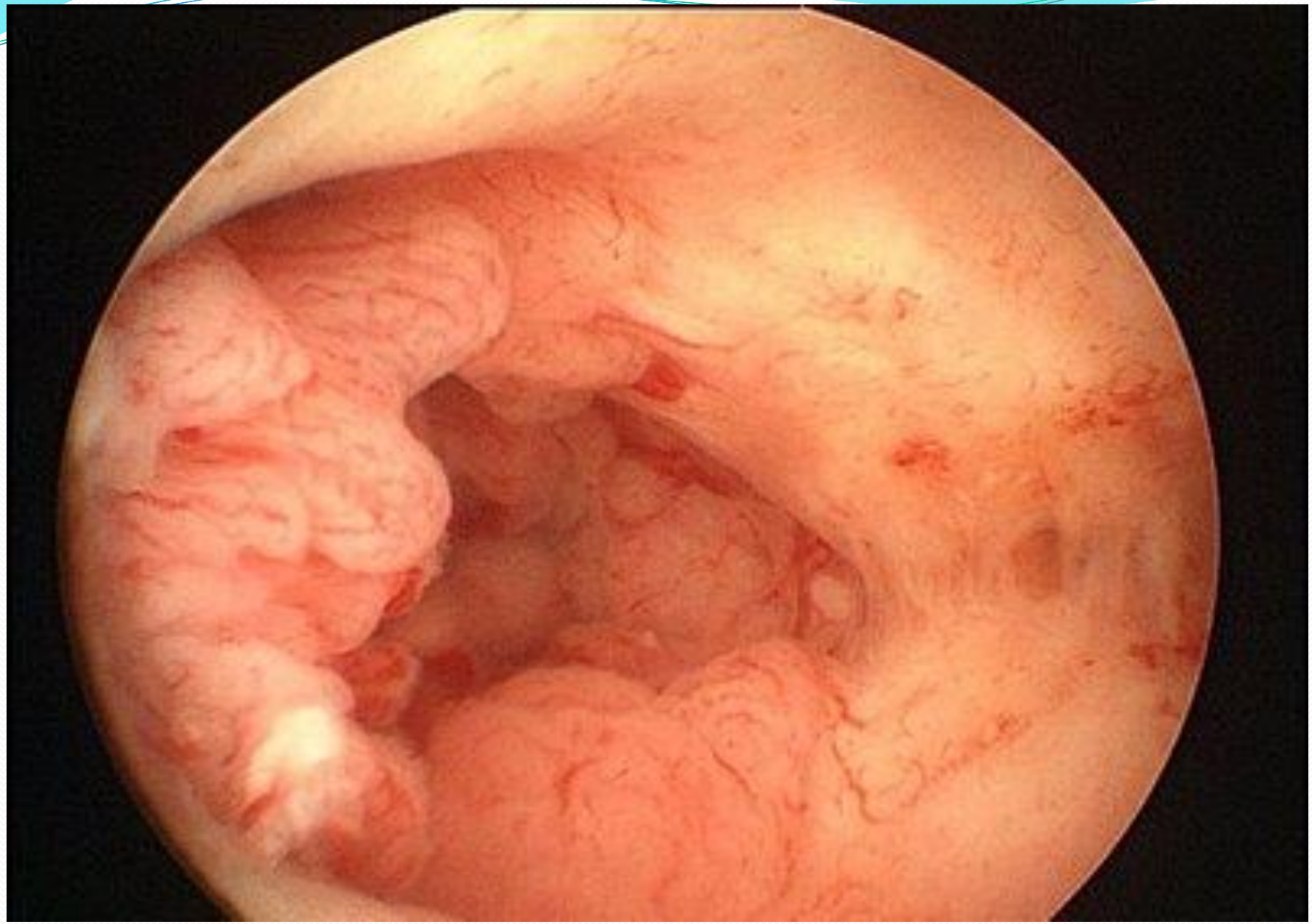
Endometrial biopsy:

- Outpatient biopsy (pipelle biopsy)

- D&C.

- Hysteroscopy.

MRI scan if TVUS not possible.



Treatment:

Medical:Progestins:

Control bleeding and prevent cancer

Medroxy progesterone acetate

Micronised vaginal progesterone

Mirena

Surgical : Trans-cervical resection of endometrium or Hysterectomy.

Endometrial Cancer:

Incidence:

Approximately 36 thousand new cases of uterine cancer each year in the Unites States

1 out of every 44 women in America will get uterine cancer.

For a lifetime incidence of 2 to 3 %

Compare to a lifetime risk of 1 of 70 for ovarian cancer

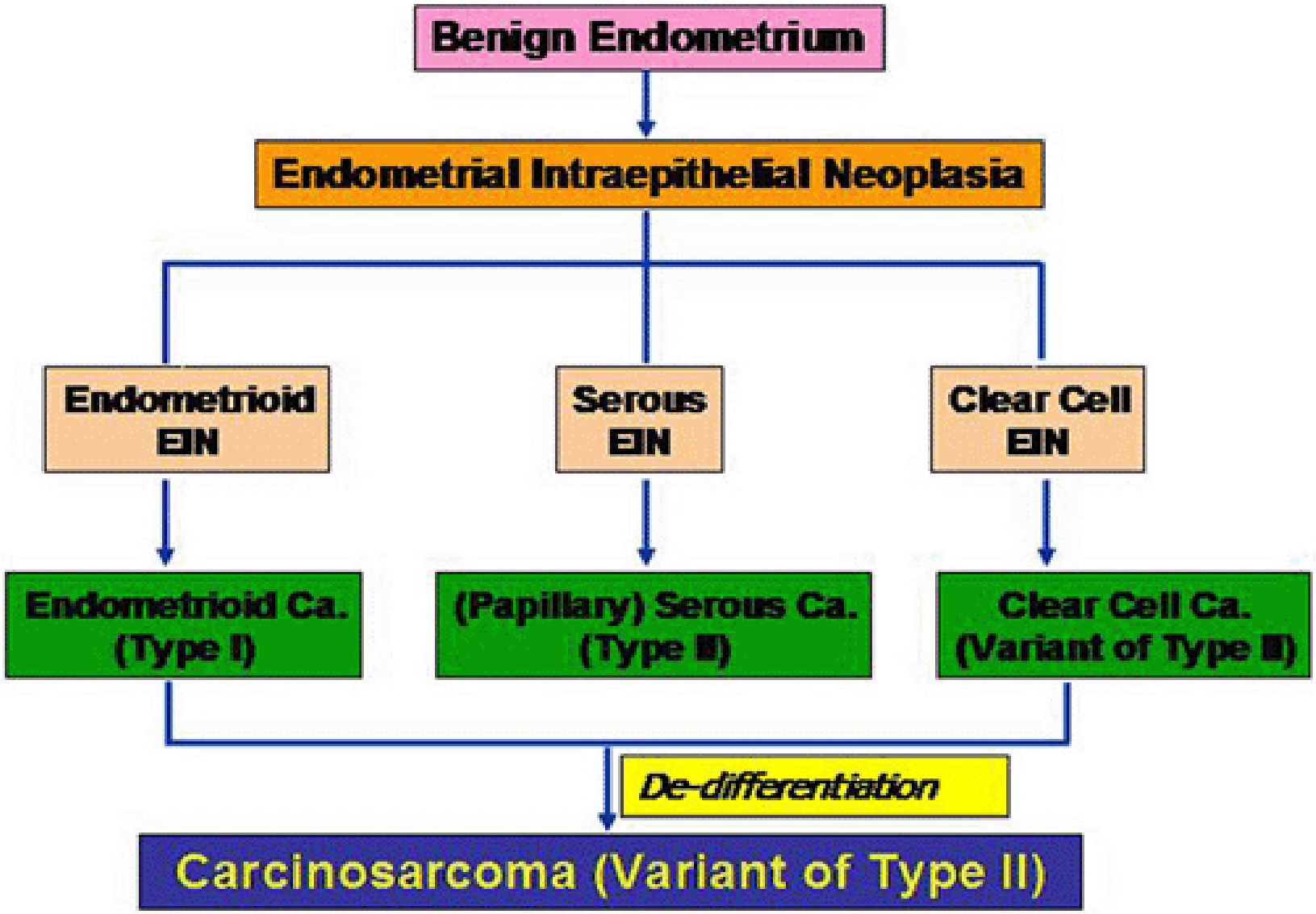
Approximately 1 of 9 for breast cancer.

The median age at diagnosis is 61 years,

- 25% will be diagnosed before menopause and 5% will be diagnosed before age 40.

- **Risk factors:**
- **Atypical hyperplasia is a precursor lesion for EM CA .**
- **Obesity .**

  excess of adipose tissue increases conversion of androstenedione into estrone. Higher levels of estrone in the blood exposes the endometrium to continuously high levels of estrogens.
- **Late menopause.**
- **PCOS.**
- **Ovarian tumour secreting oestrogen.**
- **Medications: Tamoxifen ,HRT(oestrogen).**
- **Null parity , infertility.**
- **Genetic :HNPPC(Lynch Syndrome). (a defect in MSH mismatch repair genes) 40X risk of EM CA (5X Ov) pts as young as 16y/o**


Benign Endometrium
Endometrial Intraepithelial Neoplasia
Endometrioid EIN
Serous EIN
Clear Cell EIN
Endometrioid Ca. (Type I)
(Papillary) Serous Ca. (Type II)
Clear Cell Ca. (Variant of Type II)
De-differentiation
Carcinosarcoma (Variant of Type II)

The types of uterine cancers are:

-- carcinomas : endometrioid or adeno-squamous histology

found in 85% and carry good prognosis.

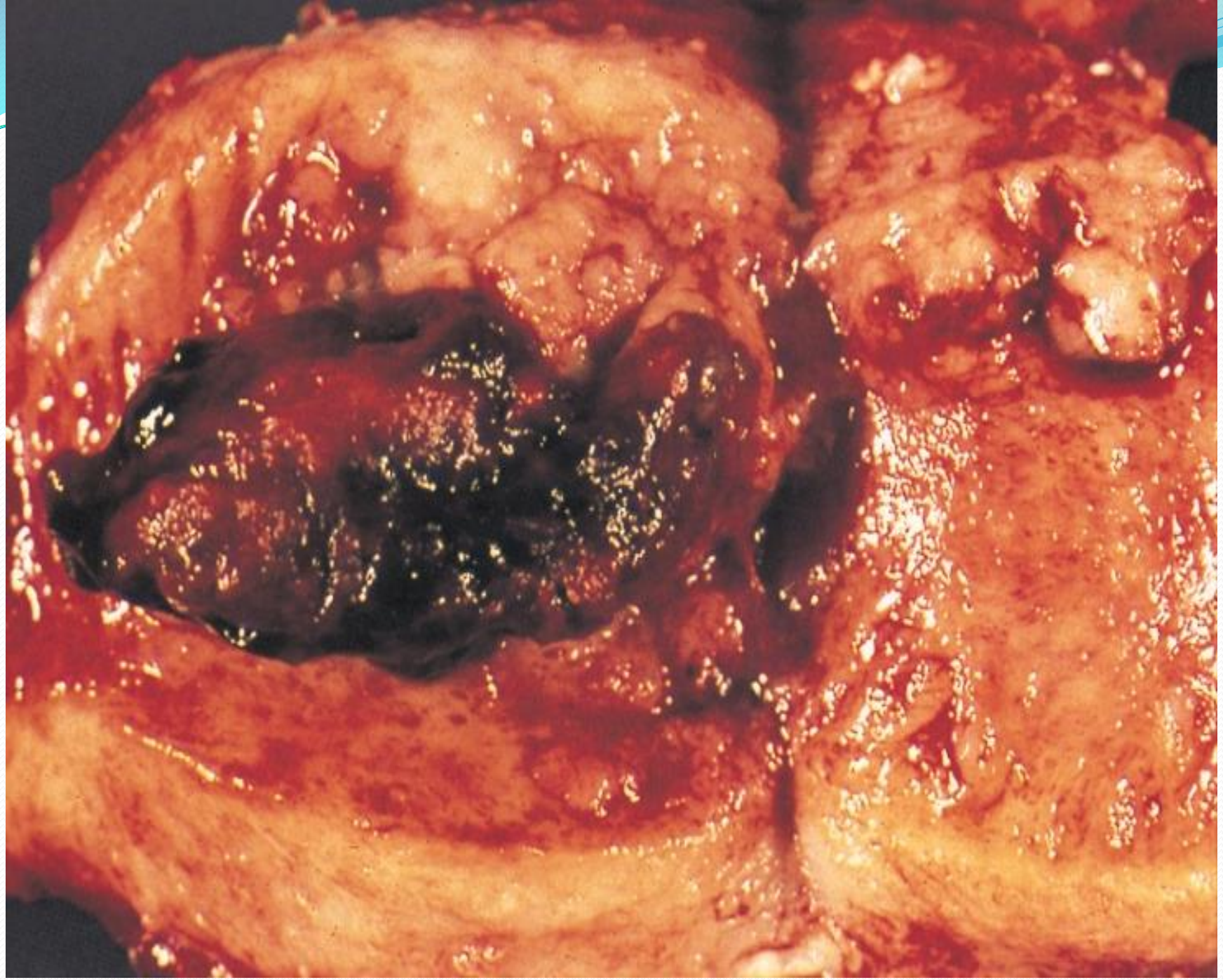
-- Uterine papillary Cancer.

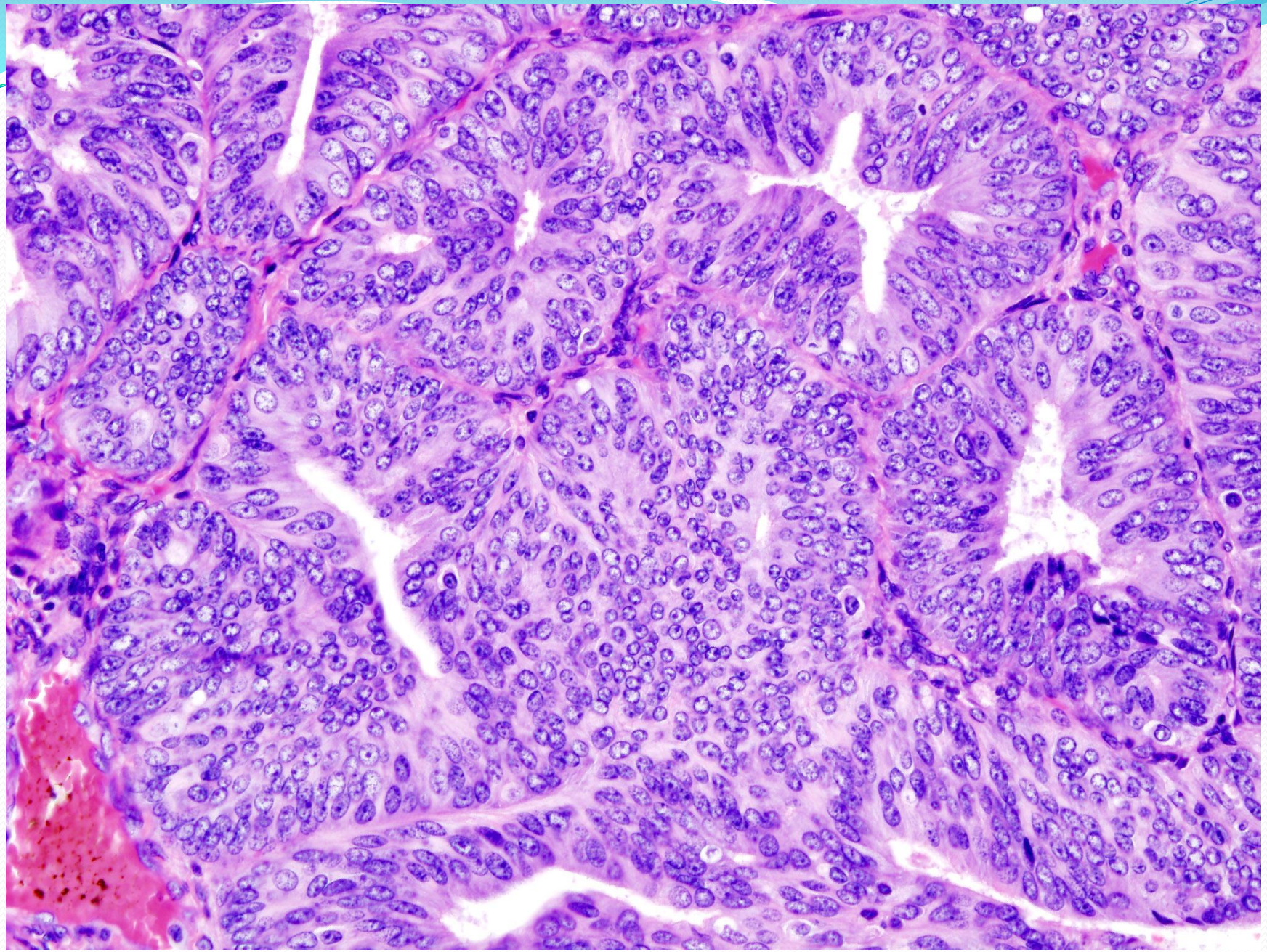
-- clear cell carcinomas

about 5% of the carcinoma, will have poor prognosis &spread aggressively.

-- The sarcomas :

carry a poor prognosis, about 6% of uterine CA in the US, but are 2X as common in black women as compared to whites.





Spread :

Direct:

Lymphatic Spread:

Upper part ,Para aortic ly .N.

Int.&ext.iliac ly.N,obtorator ly.N.Mid &lower part:

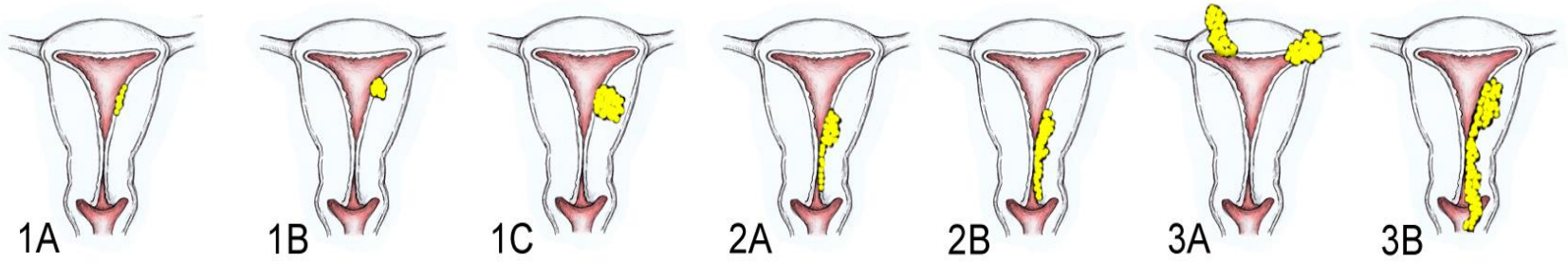
Fundal area: inguinal lymph N

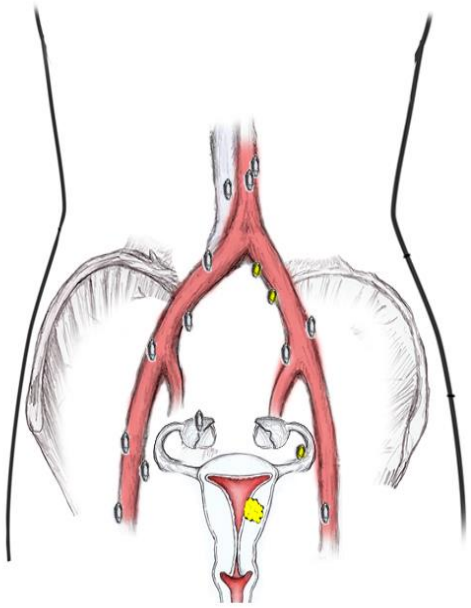
Blood .

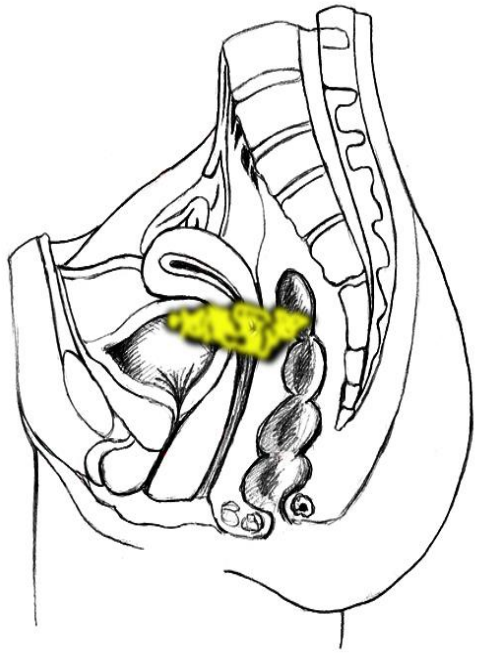
Transperitoneal.

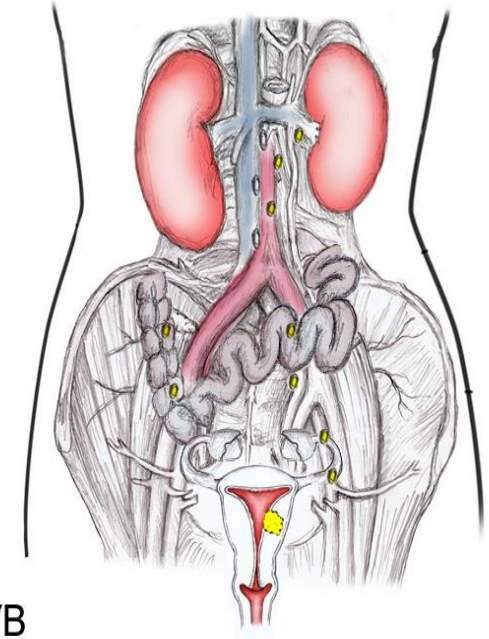
- **Staging of Endometrial Cancer:**
- **Stage I: Confined to the uterus.**
- **Stage II : Uterus & cervix.**
- **Stage III: Uterus ,adnexia ,vagina,pelvic ,aortic lymph nodes involvement.**
- **Stage IV : Bladder ,rectum, inguinal lymph nodes**

  Distant metastesis: liver , lung.




3C


1VA


1VB

- It's Surgical staging .

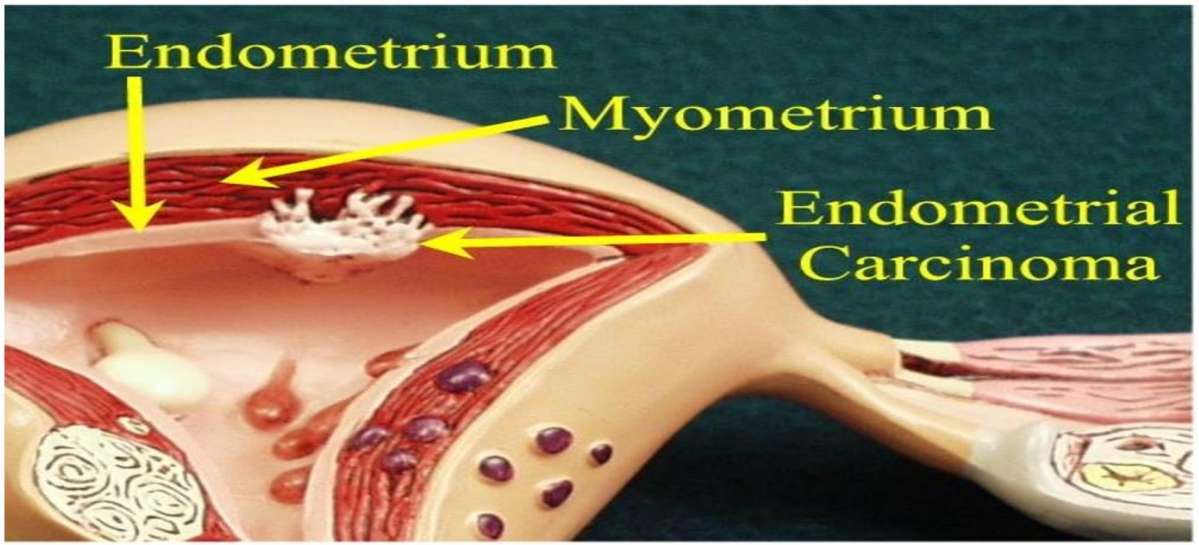
- Prognosis for endometrial cancer is generally good, due to the early stage at presentation of most patients

- The overall 5 yr survival for all grades, stages and histologies is 84%

- Stage of disease is the predictor of survival, followed by it's grade

surgical staging more accurately defines the extent of a patient's disease with respect to metastases, depth of invasion, cervical involvement..

Endometrial carcinoma

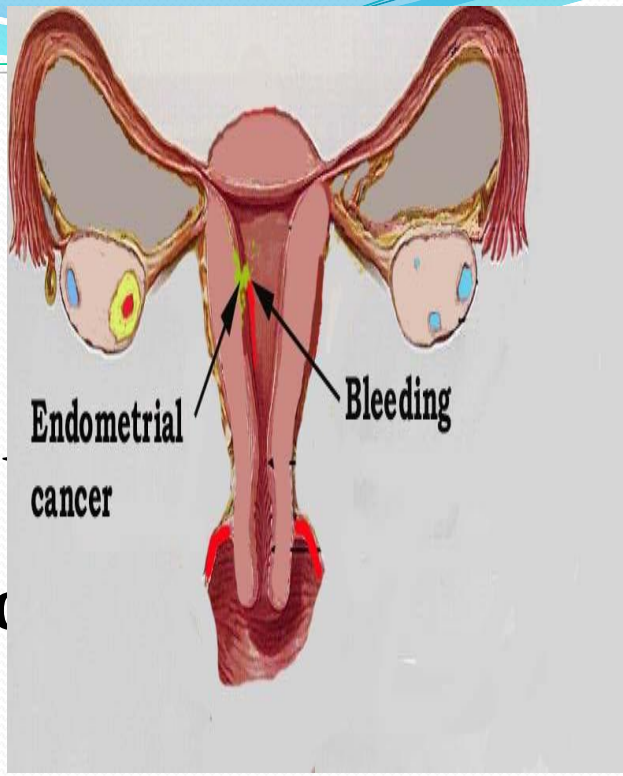


Diagnosis:

History;

Clincal presentation

- **Postmenopausal bleeding**
- **Perimenopausal intermenstrual**
- **Abnormal bleeding with history o anovulation**
- **Postmenopausal women with endometrial cells on Pap**
- **Thickened endometrial stripe via sonography**
- **It is atypia that is the defining feature of the premalignant endometrial lesion.**

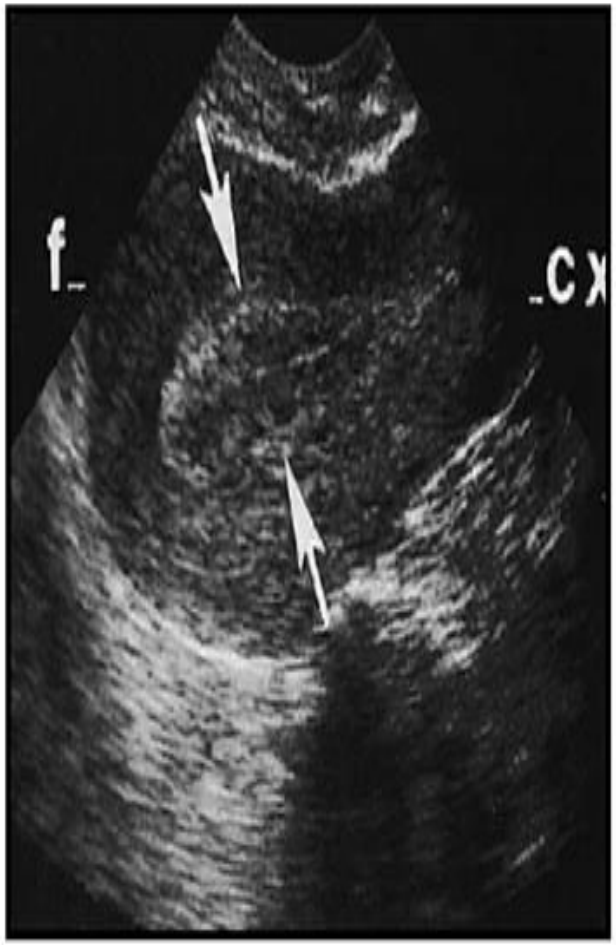


- **Physical exam.**
- **General ,abd.exam.,pelvic exam.**
- **U/S: Transvaginal U/S:**
- **Endometrial thickness more than 4mm.**
- **Endometrial biopsy: D&C with hysteroscopy should be performed**
- **CXR to rule out pulmonary metastasis.**

Mammogram.

Colon evaluation.

- **Both breast and colon cancer are more common in women with Em CA, therefore should be screened for these diseases prior to surgical tx .**



Ultrasound scan showing thickened endometrium (between arrows)
(image from GLOWM.com)

Hysteroscopic view of a malignant endometrial growth
(image from J Gynec Endosc Surg)

Pelvic MRI scan showing a large endometrial cancer
(image from Elsevier Imaging Consult)

Diff. Diagnosis for abnormal bleeding:

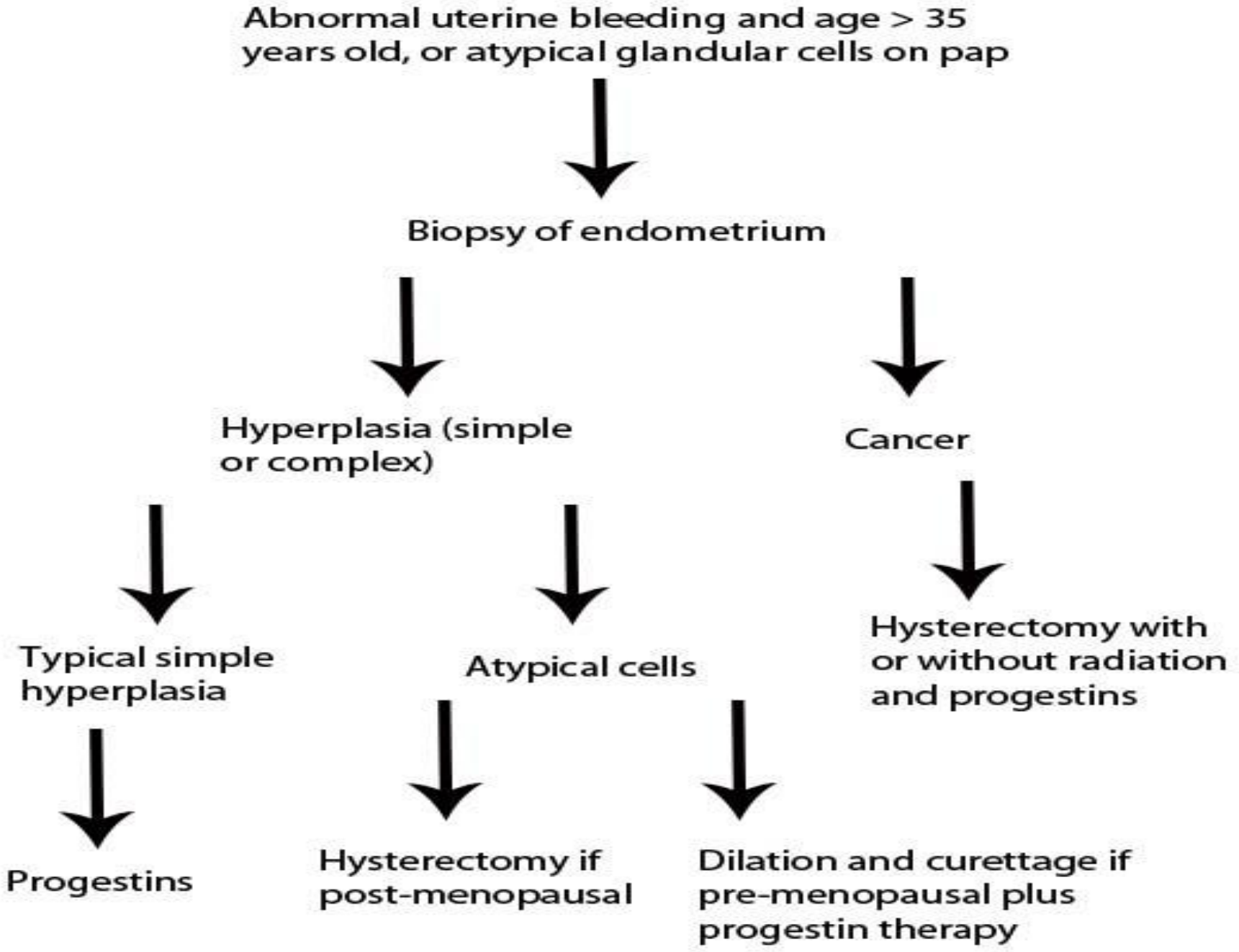
Endometrial CA: Endometrial biopsy is the main diagnostic tool , 15% of the post-menapausal women with abnormal bleeding will be diagnosed as malignancy.

-Other causes include hormone replacement induced bleeding, vaginal or uterine bleeding from atrophy

- benign condition of endometrial hyperplasia, or polyps or fibroid induced bleeding.

- other genital tract lesions and malignancies (cervical, vaginal, vulvar)

-Cervical cytology screening is not satisfactory and transvaginal sonography, hysteroscopy and uterine biopsy would not been used as screening tools, though they are useful for diagnostic purposes.


Abnormal uterine bleeding and age > 35 years old, or atypical glandular cells on pap
Biopsy of endometrium
Hyperplasia (simple or complex)
Cancer
Typical simple hyperplasia
Atypical cells
Hysterectomy with or without radiation and progestins
Progestins
Hysterectomy if post-menopausal
Dilation and curettage if pre-menopausal plus progestin therapy

Treatment :

Stage I low risk: TAH+BSO

Stage I High risk: TAH+BSO –Post op. Radiation

Stage II : TAH+BSO –Post op. Radiation

Stage III: TAH +BSO +Post. op. Radiation

Stage IV: Radiation

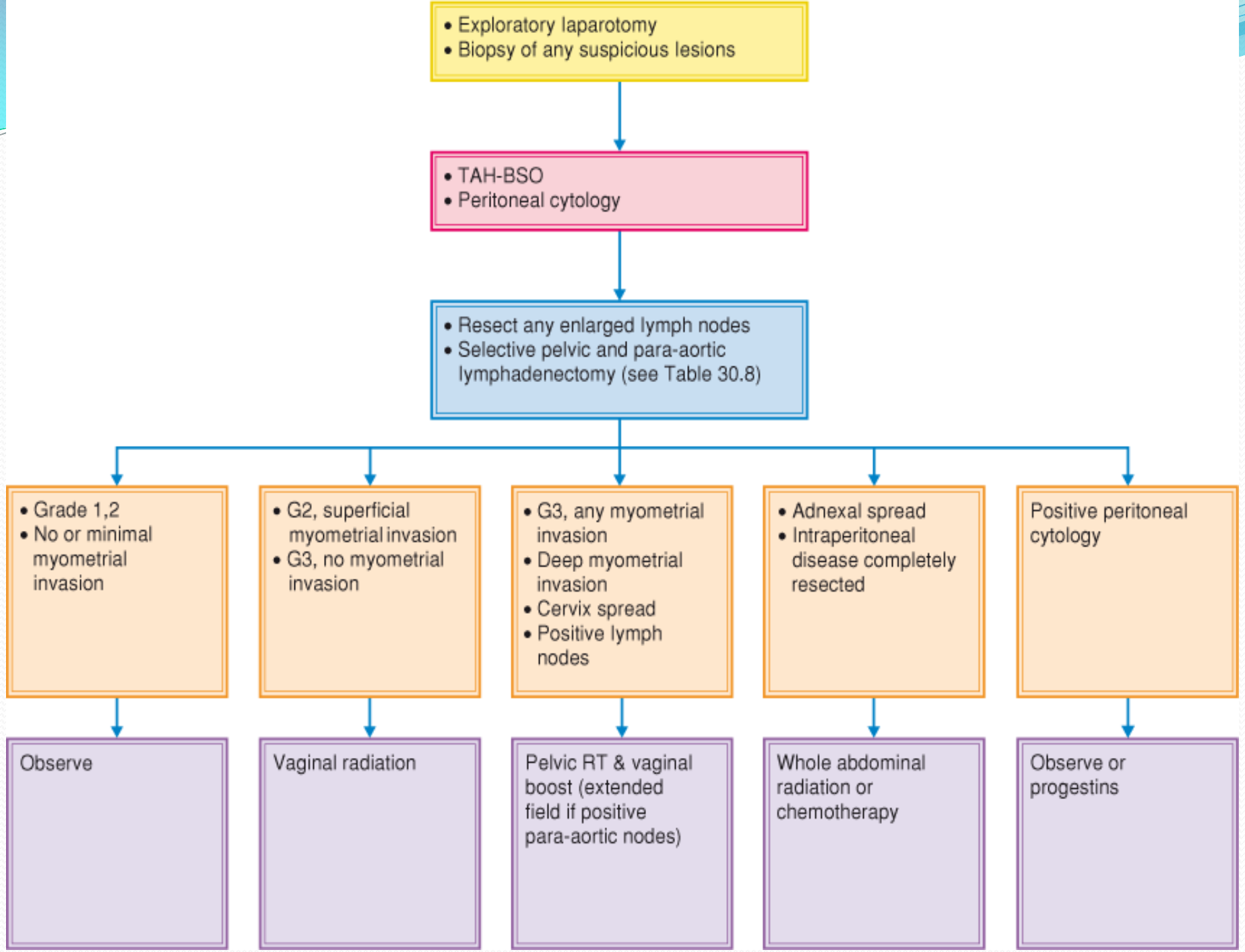
For uterine sarcoma TAH +BSO +Radiation.

- **The mainstay of adjuvant therapy for Endo.CA is Radiation**

Radiation may be delivered as either vaginal brachy-therapy or whole pelvic tele-therapy or both.

Hormonal therapy, with progestins, and cytotoxic chemotherapy are generally reserved for advanced disease or recurrent disease.

- **Carcinosarcoma or MMMT is the most common type of uterine sarcoma**
- **Both Carcinosarcomas and adenosarcomas belong to a group of mixed tumors in which epithelial and stromal components of the tumor. Carcinosarcomas contain histologically malignant epithelial and non-epithelial components while adenosarcomas contain benign epithelial component with malignant stroma .**
- **Both MMMT and LMS are twice as common in blacks as compared to whites**


• Exploratory laparotomy
• Biopsy of any suspicious lesions
• TAH-BSO
• Peritoneal cytology
• Resect any enlarged lymph nodes
• Selective pelvic and para-aortic lymphadenectomy (see Table 30.8)
• Grade 1,2
• No or minimal myometrial invasion
• G2, superficial myometrial invasion
• G3, no myometrial invasion
• G3, any myometrial invasion
• Deep myometrial invasion
• Cervix spread
• Positive lymph nodes
• Adnexal spread
• Intraperitoneal disease completely resected
Positive peritoneal cytology
Observe
Vaginal radiation
Pelvic RT & vaginal boost (extended field if positive para-aortic nodes)
Whole abdominal radiation or chemotherapy
Observe or progestins

THANK YOU