ENDOMETRIAL CARCINOMA

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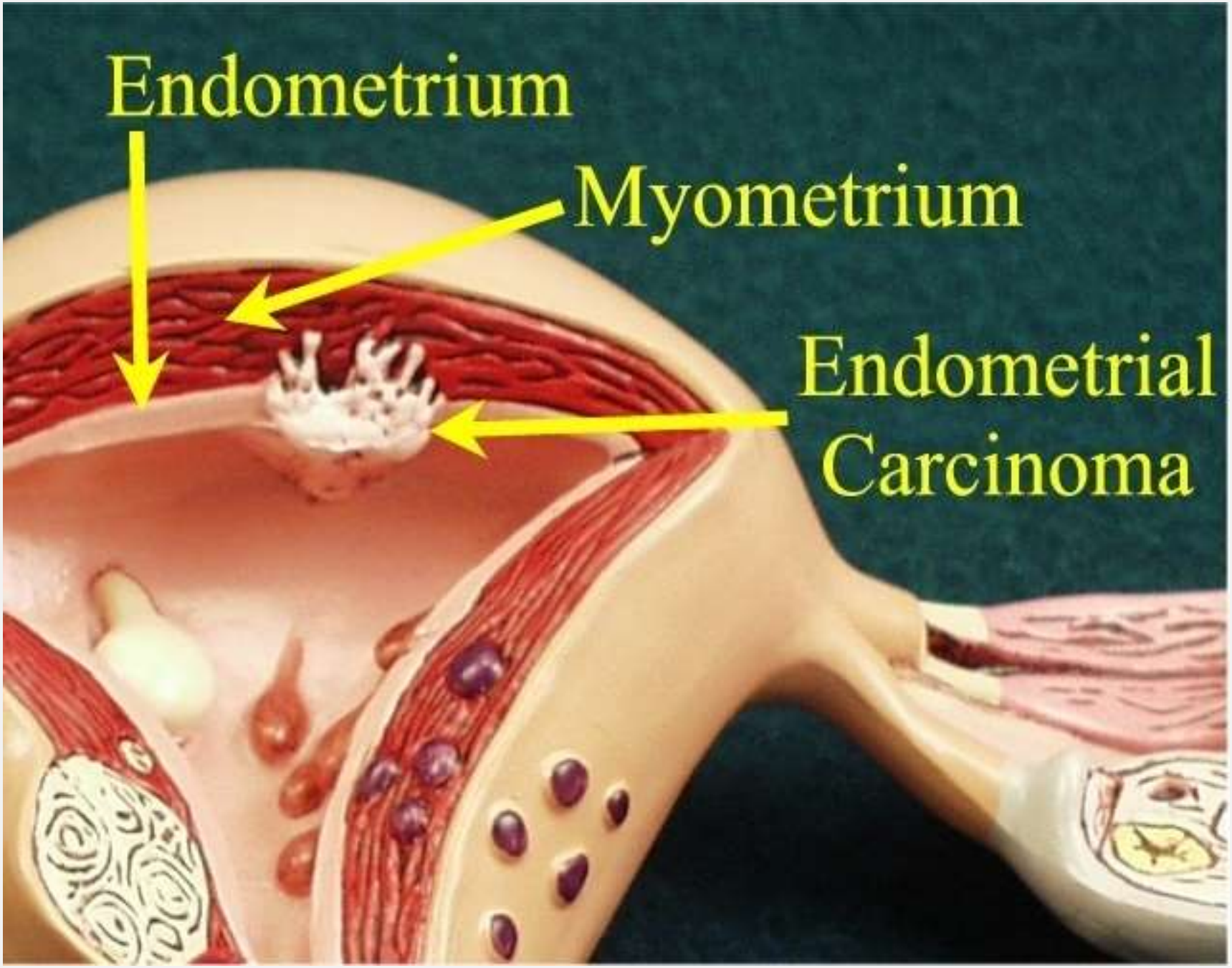
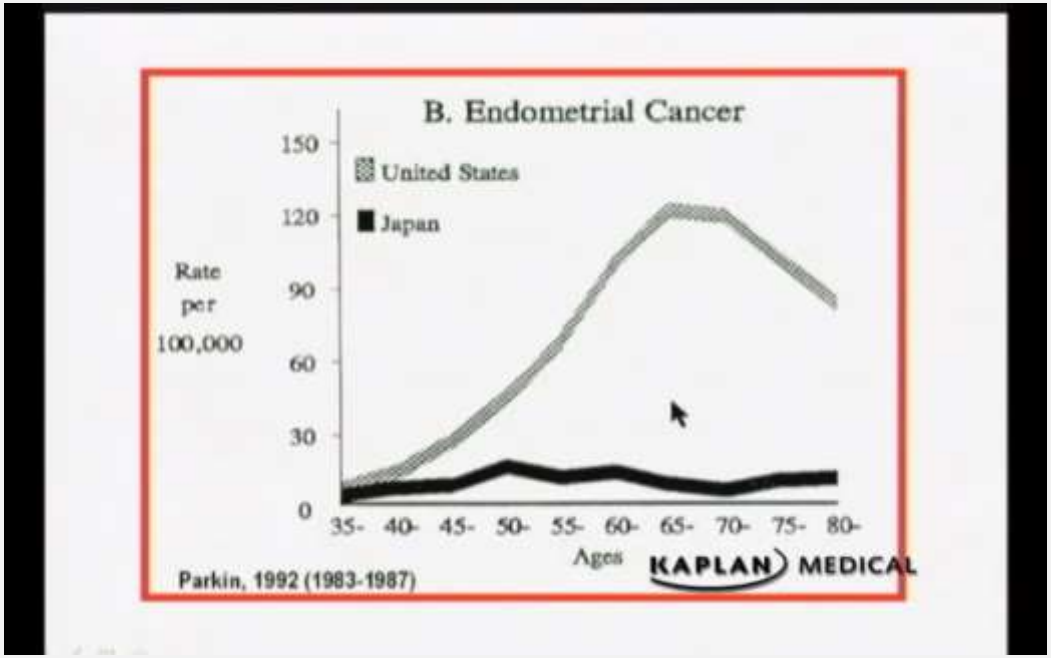
•ENDOMETRIAL CARCINOMA ARISES FROM EPITHELIAL TISSUES IN THE LINING OF THE GLANDS AND COLUMNAR CELLS CONSTITUTING THE SURFACE OF THE ENDOMETRIUM


Endometrium
Myometrium
Endometrial
Carcinoma

INCIDENCE

Commonest female pelvic malignancy occuring twice as common as cancer of cervix and ovary

The reported incidence is 35/100,000 which is mainly due to unopposed estrogen therapy in postmenopausal women for hormone replacement therapy without progestogen


B. Endometrial Cancer
150
120
90
60
30
0
United States
Japan
Rate per 100,000
35- 40- 45- 50- 55- 60- 65- 70- 75- 80-
Ages
Parkin, 1992 (1983-1987)
KAPLAN MEDICAL

AETIOLOGY

1.Age

Average age at presentation…….60 yrs

Majority of the patients are postmenopausal

the incidence under age 40……...1/100,000

2.Parity

common in nulliparous (the risk decreases with parity)

3) Late Menopause

- Most of the patients are postmenopausal

4) Obesity

. After menopause fat becomes an important

source of estrogen production through conversion of androgen to estrogen.

5) Diabetes Mellitus and other Medical disorders

- D.M increases the chances by two to three times

6. Ovarian tumours

- Polycystic ovaries and female hormone producing tumors like granulosa cell or theca cell tumours predispose to the development of endometrial carcinoma
- Excessive estrogen causes atypical hyperplasia of endometrium, which predisposes to invasive cancer

7) Endometrial Hyperplasia

- Cystic hyperplasia has least risk
- Glandular hyperplasia has low risk
- Atypical hyperplasia has the highest risk

9) Hormone replacement therapy

.when estrogen is used alone

.combination of estrogen and progesterone should be taken for hormone replacement therapy(this combination actually decreases the incidence of endometrial carcinoma)

10) Diet

- diet rich in fats

➢ TAMOXIFEN

- Used for the treatment of breast cancer
- Later on may lead to the development of endometrial hyperplasia and endometrial carcinoma

PATHOLOGY

- The tumor is an adenocarcinoma in 90% of cases

GROSS FEATURES

1) Diffuse type

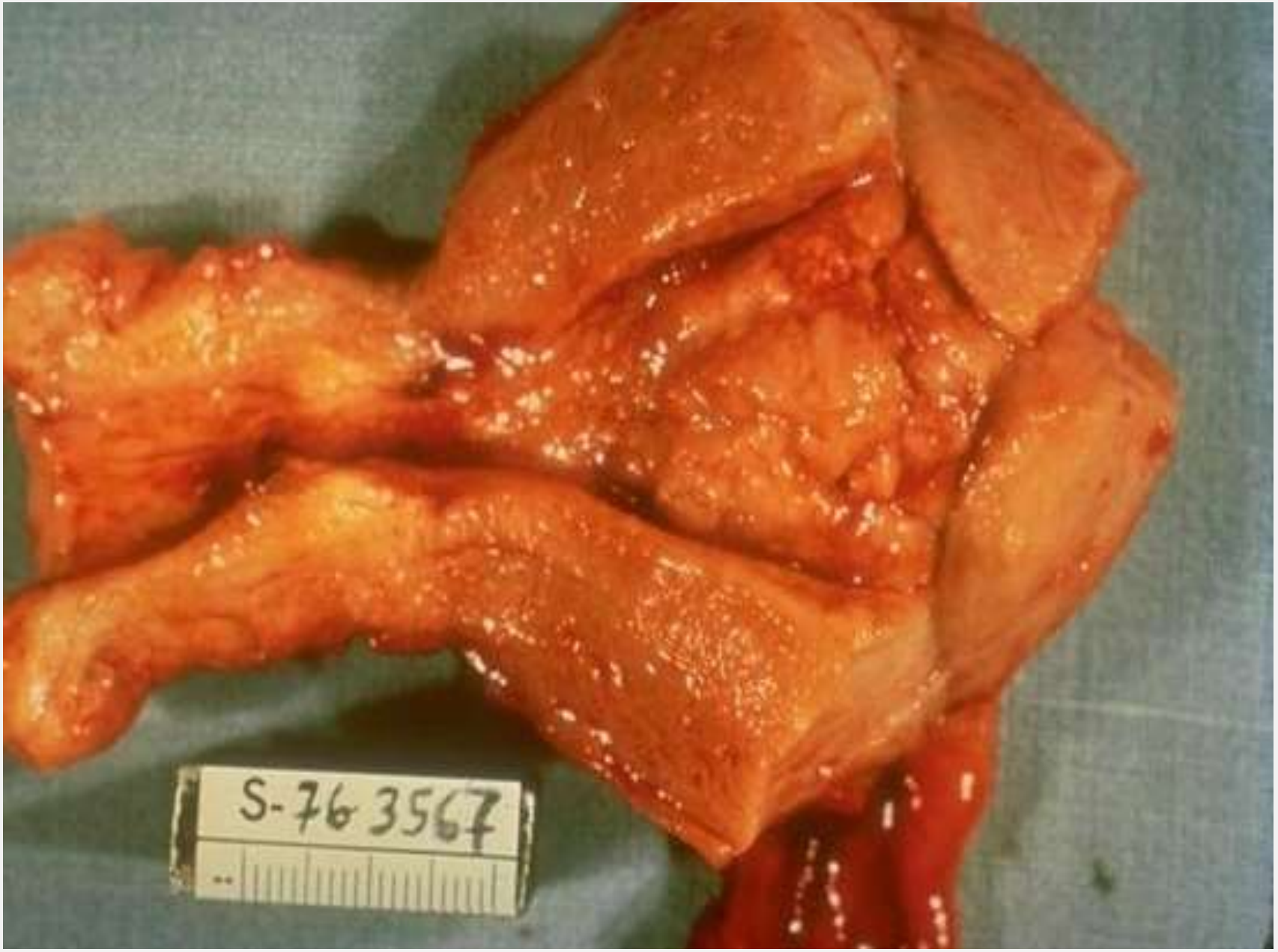
- Most of the endometrium is involved in the growth
- Polypoidal growths appear with areas of ulceration and necrosis

- In advanced stages growth penetrate into the myometrium even rarely reach the serous surface
- Involvement of the myometrium causes enlargement of the uterus
- Occasionally pyometra can be formed

(pyometra is formed following infection of a tumor with accumulation of pus in the uterus due to stenosis of internal cervical os)

2) Localized Type

- Tumor is limited to a small area where it forms a polypoidal growth
- Polyp has surface ulceration and necrosis
- In the later stages the myometrium can be involved and the growth may extend to the cervical canal and peritoneal covering.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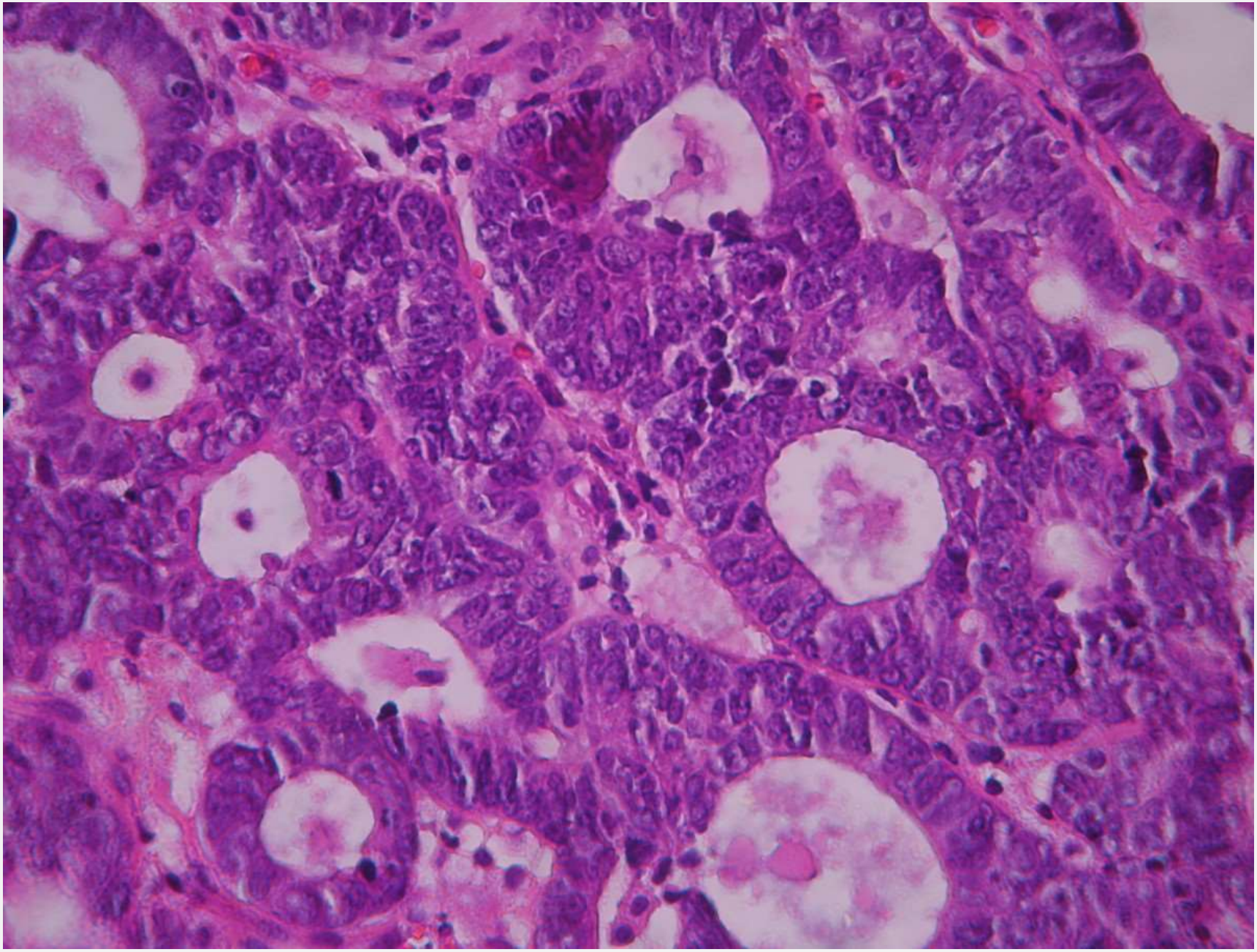
MICROSCOPIC PICTURE

- Endometrial carcinoma is predominantly adenocarcinoma 90%
- Less than 10% cases are squamous cell adenoacanthoma
- Well differentiated adenocarcinomas also show variations like papillary, mucinous or clear cells
- All grades of endometrial hyperplasia are seen



than half of myometrium with no or focal lymphovascular space involvement (LVSI) OR good prognosis

1 Non-aggressive histological type limited to an endometrial polyp OR confined to the endometrium

2 Non-aggressive histological types involving less than half of the myometrium with no or focal LVSI

3 Low-grade endometrioid carcinomas limited to the uterus and ovary[c]

on-aggressive histological types with invasion of half or more of the myometrium, and with no or focal L

ggressive histological types[e] limited to a polyp or confined to the endometrium

vasion of cervical stroma with extrauterine extension OR with substantial LVSI OR aggressive histologic myometrial invasion

vasion of the cervical stroma of non-aggressive histological types

ubstantial LVSI[d] of non-aggressive histological types

ggressive histological types[e] with any myometrial involvement

ocal and/or regional spread of the tumor of any histological subtype

vasion of uterine serosa, adnexa, or both by direct extension or metastasis

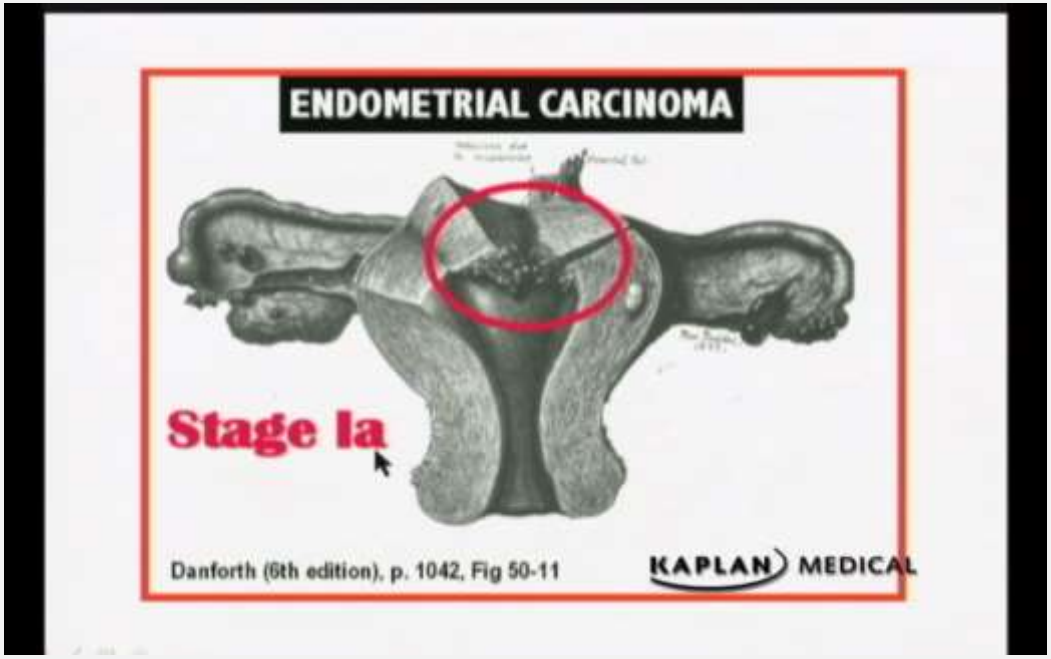
A1 Spread to ovary or fallopian tube (except when meeting stage IA3 criteria)[c]
A2 Involvement of uterine subserosa or spread through the uterine serosa

etastasis or direct spread to the vagina and/or to the parametria or pelvic peritoneum

B1 Metastasis or direct spread to the vagina and/or the parametria
B2 Metastasis to the pelvic peritoneum

etastasis to the pelvic or para-aortic lymph nodes or both[f]

C1 Metastasis to the pelvic lymph nodes
C1i Micrometastasis
Cii Macrometastasis
C2 Metastasis to para-aortic lymph nodes up to the renal vessels, with or without metastasis to the pelv
C2i Micrometastasis


ENDOMETRIAL CARCINOMA
Stage Ia
Danforth (6th edition), p. 1042, Fig 50-11
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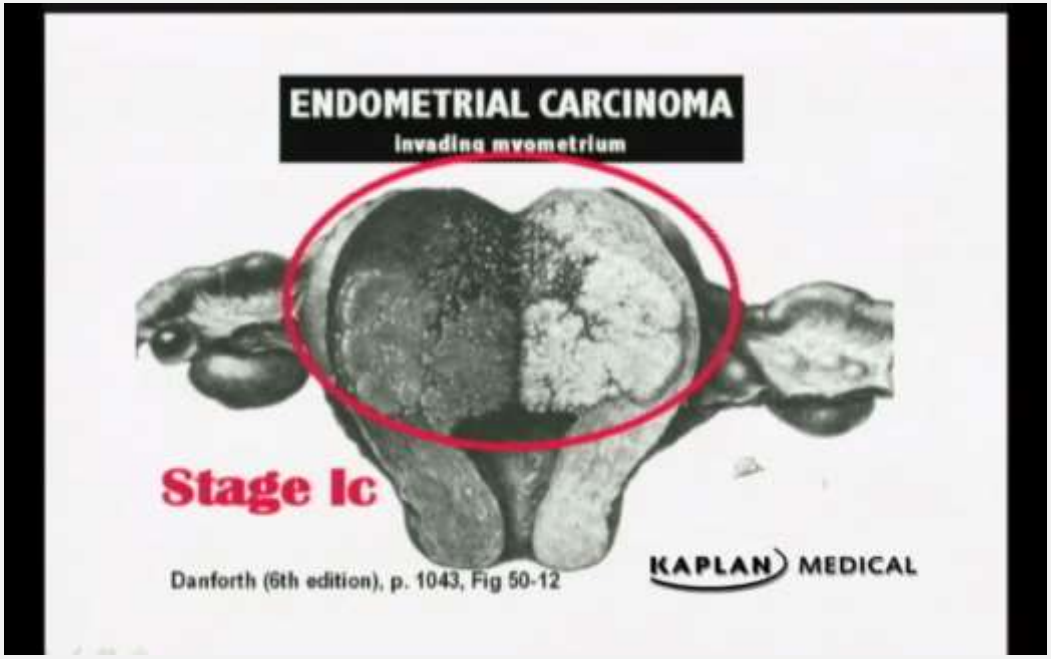

ENDOMETRIAL CARCINOMA
invading myometrium
Stage Ic
Danforth (6th edition), p. 1043, Fig 50-12
KAPLAN MEDICAL

SPREAD

i) Direct

- directly spread over the endometrium into the cervical canal
- The spread into the myometrium is uncommon
- Direct spread to the ovary occurs through the tube

ii) Lymphatic spread

- Local organs and distant parts
- Spread to the tubes, ovaries and vagina

a) From fundus - inguinal nodes along the round ligaments

b) Upper uterus - Para aortic nodes

c) Middle and lower uterus – Para cervical, obturator, external iliac(same as for cervical cancer)

BLOOD BORNE SPREAD

- Not the common route
- Lung (most commonly)
- liver, bone and brain (less commonly)

CLINICAL FEATURES

i) SYMPTOMS :

a) Bleeding

- Post menopausal bleeding in 75% cases
- In premenopausal patients irregular menstruation or menorrhagia is the usual complaint

b) Vaginal discharge

- Brownish or blood stained vaginal discharge
- May be offensive

c) Pain

- presence of pain may indicate metastasis and advanced growth
- patient complains of dull lower abdominal pain
- Pain may be colicky in nature due to strong contractions of uterus
- d) Asymptomatic
- Some patients may not present with pain, diagnosis is made on routine examination

II) SIGNS

- NO TYPICAL SIGNS
- In case of large tumor the uterus may feel enlarged
- In case of advanced tumor inguinal lymph nodes may become palpable

DIAGNOSIS

- Patient who presents with post menopausal bleeding should be further investigated

- Ultrasonography may show irregular or polypoidal endometrium. Endometrium is more than 5mm in thickness

- Examination under anesthesia

  - genital tract is thoroughly inspected for any local lesion or metastasis

- Fractional curettage is performed,

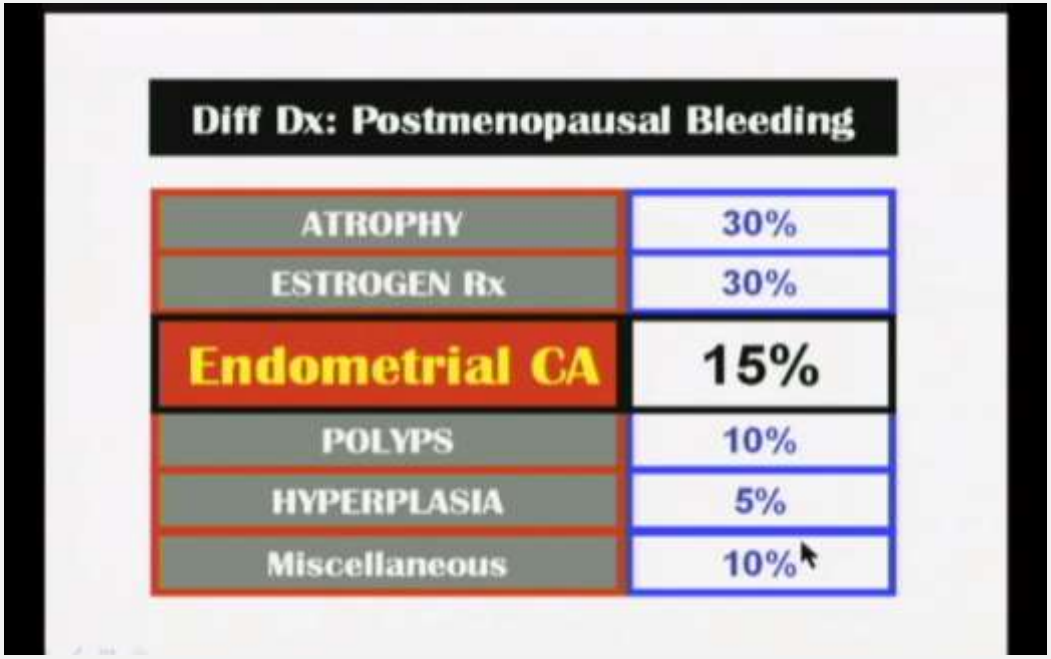
  -Curettings are bulky and necrotic in endometrial carcinoma

- MRI is used to localize the growth in the cavity and invasion to the myometrium

- CA 125 a nonspecific tumor marker, if elevated (more than 35 u/ml), shows that the disease has spread outside the uterine cavity

DIFFERENTIAL DIAGNOSIS

- OTHER CAUSES OF POST MENOPAUSAL BLEEDING…i.e
- Estrogen therapy
- Cervical polyp
- Atrophic vaginitis


Diff Dx: Postmenopausal Bleeding
ATROPHY
30%
ESTROGEN Rx
30%
Endometrial CA
15%
POLYPS
10%
HYPERPLASIA
5%
Miscellaneous
10%

TREATMENT

1) GENERAL MEASURES

- General health should be improved
- Renal Function Test
- Liver Function Test
- Blood Glucose

2) SURGERY

- If the carcinoma is restricted to the body of uterus, hysterectomy with bilateral oophorectomy
- Peritoneal washing is sent for cytology
- Lymph nodes examined for enlargement

HYSTERECTOMY CAN BE…

1) Total Abdominal hysterectomy

-Treatment of choice for stage 1

2) Extended Hysterectomy

- Removal of uterus , both tubes and ovaries
- Routinely not performed

- Prognosis is better when ovaries are removed

5) Surgery combined with Radiotherapy

- Used in stage ic or ii
- Better prognosis than surgery alone

3) RADIOTHERAPY

- If the growth is widespread in pelvis stage iii or iv
- Or the patient is too weak to undergo surgical treatment

4) CHEMOTHERAPY

- Except prgestogens other chemotherapeutic agents are ineffective in the treatment of advanced endometrial carcinoma
- Progestogens include

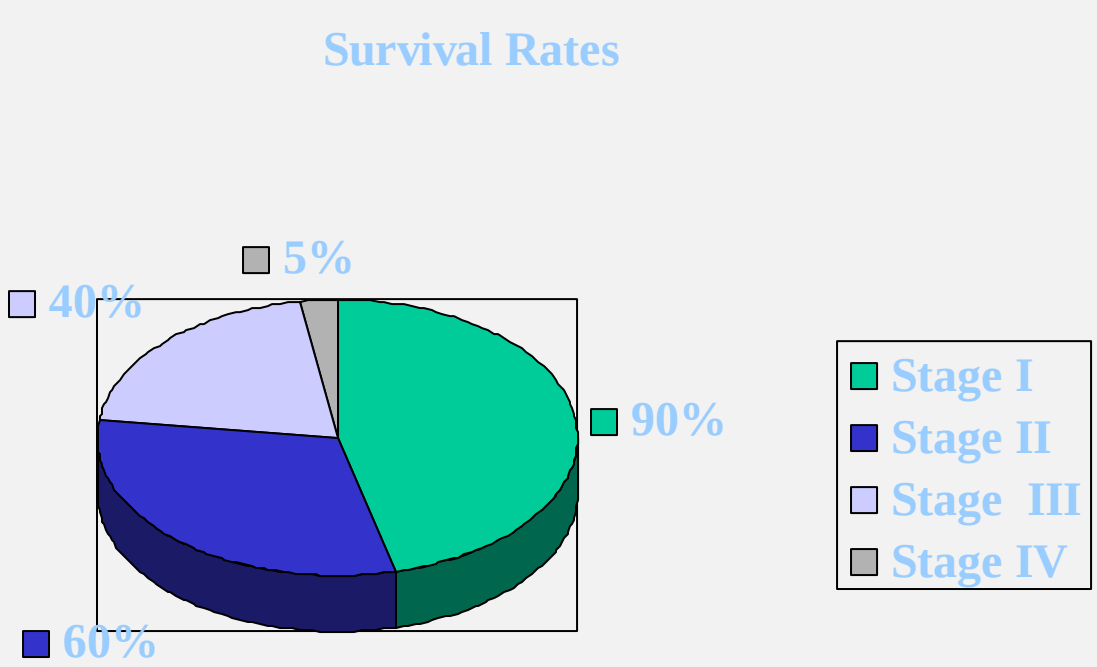
i) Injection Medroxyprogesterone 200mg i/m weekly

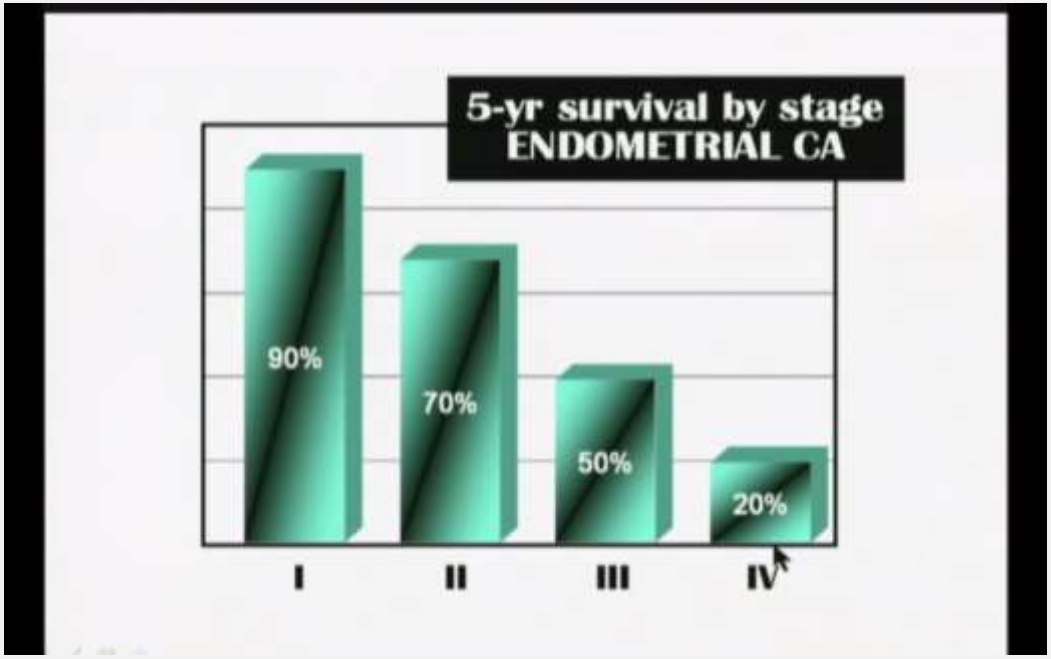
ii) Injection Hydroxyprogesterone Hexanoate 1g i/m weekly

- Injection Hydroxyprogesterone Caproate 250mg i/m weekly
- Tab Northisterone 10mg TDS

Prognosis

- Since it is possible to detect endometrial cancer early, the chances of curing it are excellent!




5-yr survival by stage
ENDOMETRIAL CA
90%
70%
50%
20%
I
II
III
IV


Thank You