Malignant lesions of vulva and vagina

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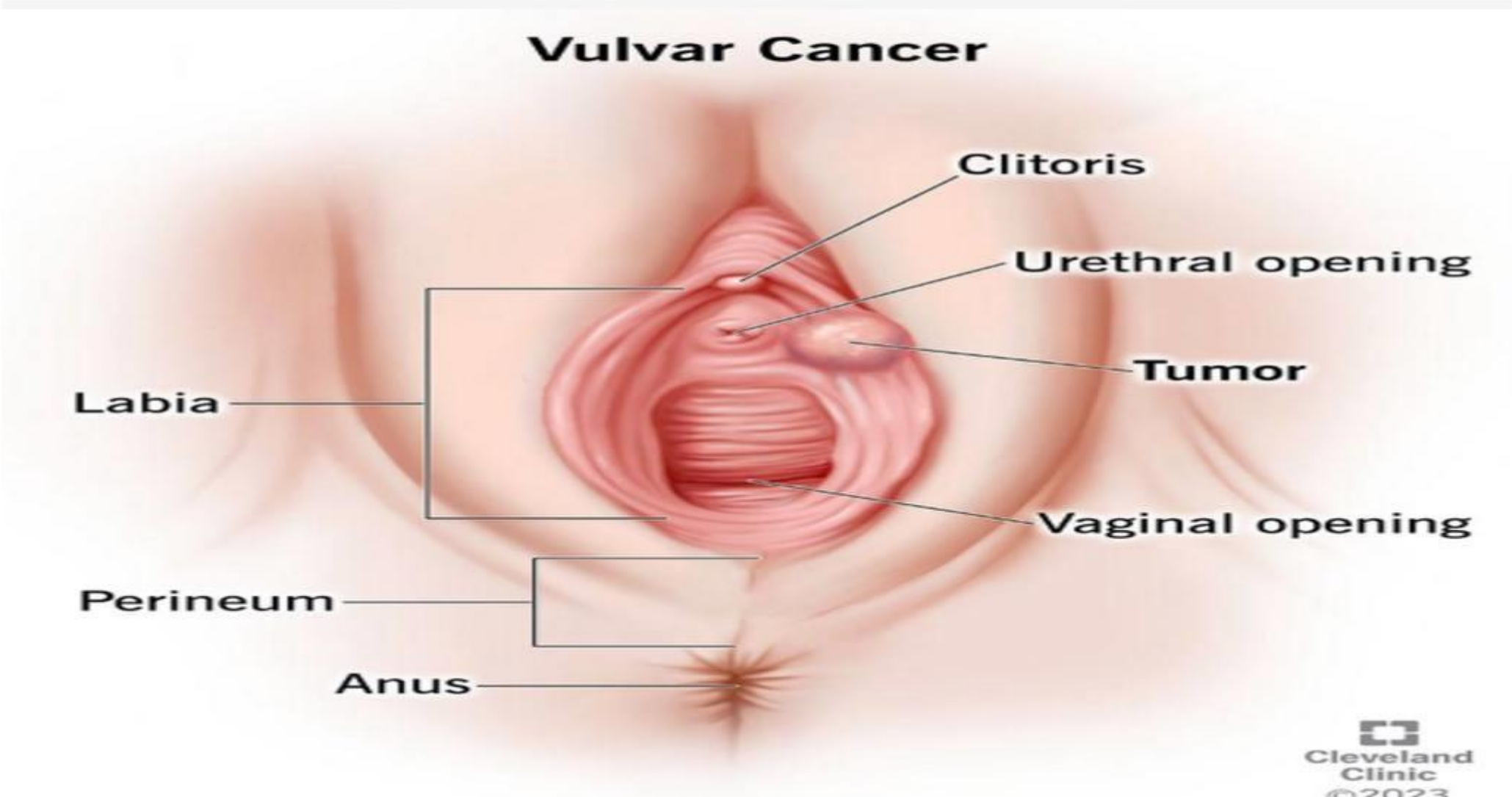
Vulvar cancer is a rare cancer that forms in the tissues of your vulva. “Vulva” is the collective name for all the external sex organs, or genitals,



INCIDENCE

Vulvar & vaginal cancers are rare

✓Majority are of epidermal origin

✓Age: 60-75 years.

✓90-95% of Vulvar cancer are of Squamous origin.

✓Melanoma of the vulva is second most common type (4-9%).

EPIDEMIOLOGY

Is uncommon (4% of malignancies of the female genital tract)Mostly squamous cell carcinomaMostly postmenopausal

- 4th most common cancers in women

HPV-related vulvar cancer: 35–65 years

•Non-HPV related types: 55–85 years

Vulvar cancer is rare. Healthcare providers diagnose just under 6,500 new cases of vulvar cancer in the U.S. each year.

Nearly 80% of people diagnosed are over age 50, and over half of all diagnoses are in people over age 70. The average age at diagnosis is 68.

RISK FACTORS OF CANCER

1-HPV (16, 18, 31,33) infection most common 16 and 33

2-Vulvar dysplasia (VIN)

3- Smoking

4- Percutaneous lesion (lichen lesion)

5- Low immunity

CLASSIFICATION

1-Vulvar squamous cell carcinoma: Approximately 90% of vulvar cancers are squamous cell carcinomas. They develop in the cells on the surface of your skin.

2-**Vulvar melanoma**: Approximately 5% of vulvar cancers are melanomas. Melanomas develop rapidly and have a high risk of spreading to other areas of your body.

3-Basal cell carcinoma.

4-Bartholin gland adenocarcinoma.

5-Paget disease of the vulva.

6-Sarcoma.

7-Verrucous carcinoma.

ETIOLOGY

1-Related to HPV and smoking

- ☐ Seen in 40-50 (younger age)
- ☐ Commonly associated with VIN afterHPV infection

2-Not Related to HPV and smoking

- ☐ Seen in 70 (elderly women)
- ☐ Related to long standing lichen sclerosus

CLINICAL FEATURES

1. Asymptomatic (half of patient)

2. Itching (most common)

3-Vulvar bleeding or discharge (less common)

4-Dysuria, dyspareunia (superficial)

5-Lymphadenopathy in the groin area

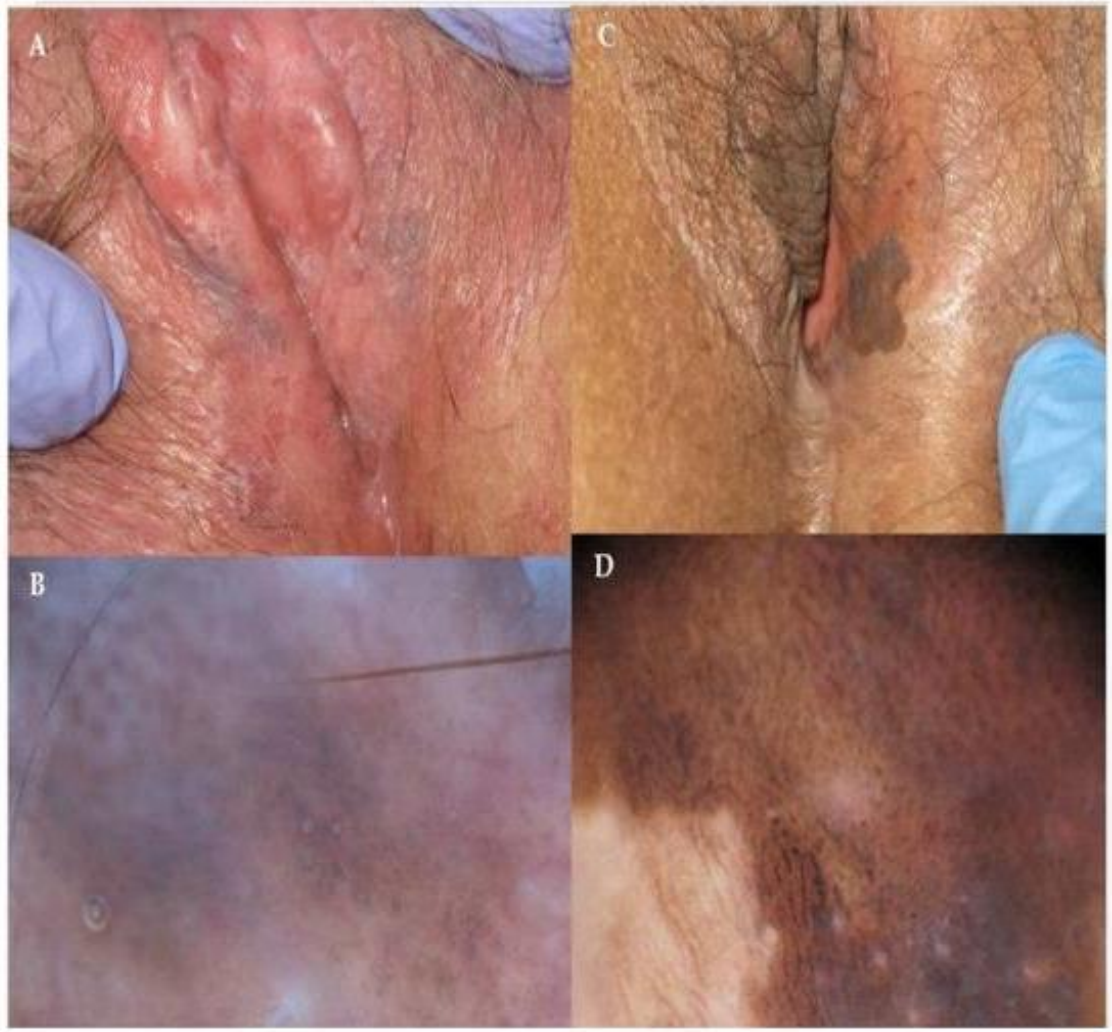
6-Reddish, blackish, and/or whitish patches of discoloration

7- raised lesion

Diagnosis:

1- Biopsy (definitive diagnosis)

2- Colposcopic examination (after application of 5% acetic acid)



VIN

• VIN (vulvar intraepithelial neoplasia)

o Is a non-invasive precursor lesion

o 80% will lead to invasive cancer at 10 years if not treated & 7-8% if treated.

oVIN affects mainly L.minora & perineum.

Risk factors

• Human papilloma virus associated with

❖ 30% of Vulval cancer

❖ 80-90% of Vulval cancer in women less than 50 years of age.

• Smoking: co-factor of HPV & VIN development.

• Immunosuppression

• Chronic vulvar irritation

• STD

VALVULAR INTER EPITHELIUM NEOPLASIA

Definition: precancerous lesion caused by dysplasia of squamous cells

• Classification of VIN

According to the depth of dysplastic epithelial involvement :

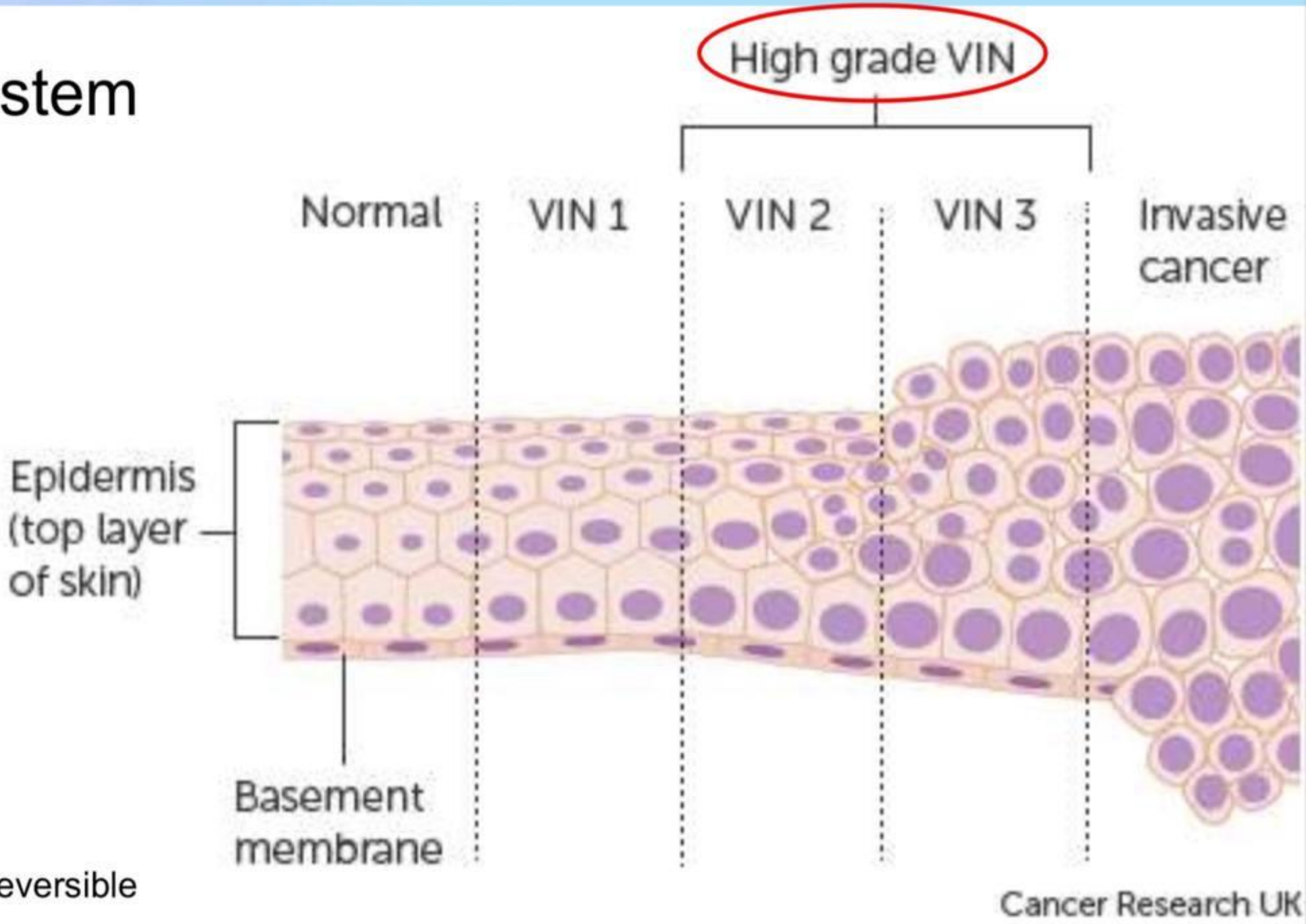
• VIN I -- Mild dysplasia with hyperplastic vulvar dystrophy with mild atypia

• VIN II -- Moderate dysplasia, hyperplastic vulvar dystrophy with moderate atypia

• VIN III -- Severe dysplasia; hyperplastic vulvar dystrophy with severe atypia (it replaces the term carcinoma in situ, Bowen's disease).

FIGURE 40-1 Vulvar intraepithelial neoplasia (grade III) or carcinoma in situ of the vulva. Note the pigmented and multicentric nature of the lesions and the extensive perianal involvement in this patient.

Grading system



VIN 3→ still reversible
Carcinoma insitu → irreversible

GENERAL MANAGEMENT

Management:

Small lesion

1-local superficial surgical excision with 5 mm safety margainand primary closure

Extensive lesion

2-Vulvectomy (remove the skin) with split-thickness skin graft

Multiple small lesions

3-laser therapy

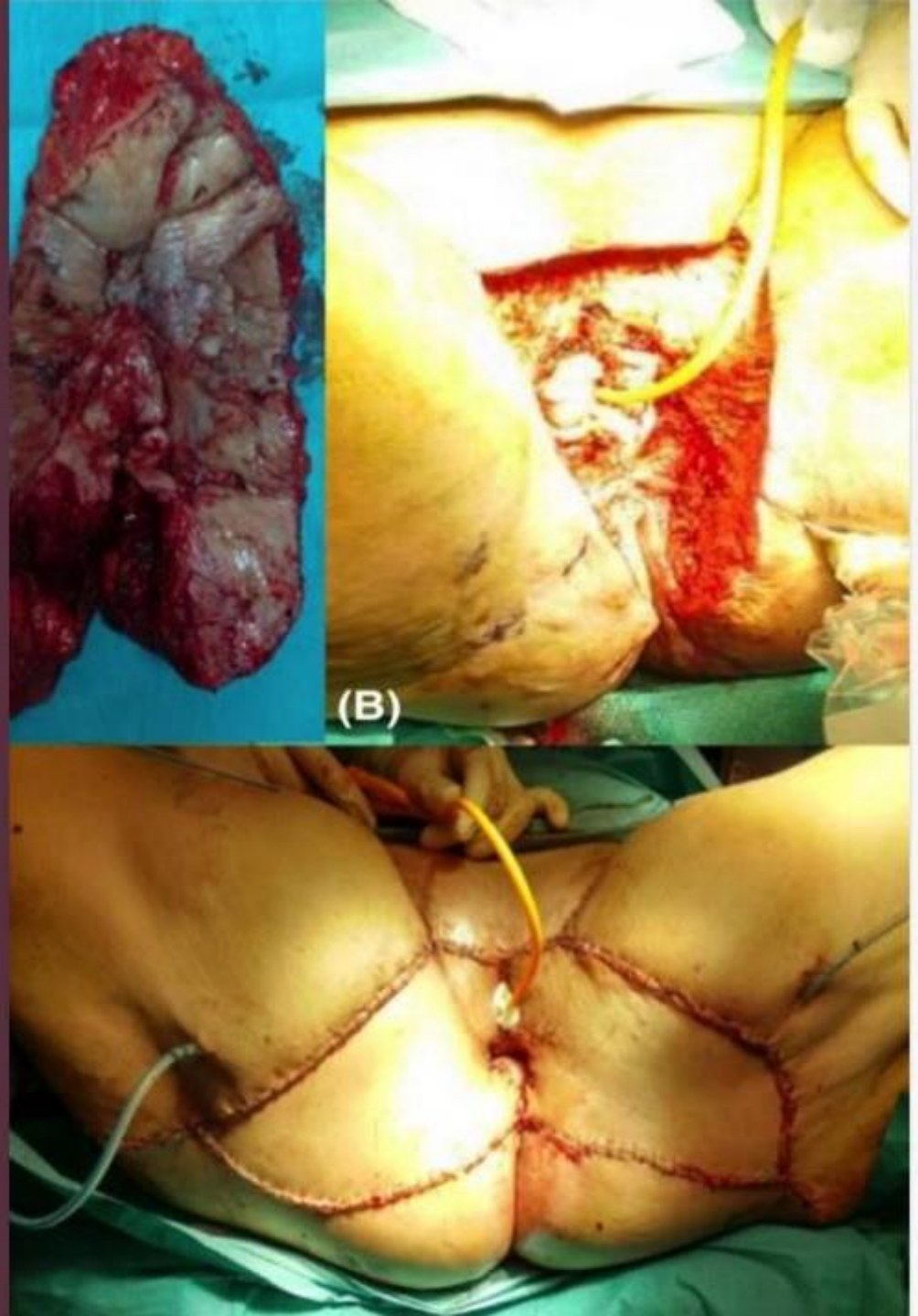
4-Take biopsy before ablation of the laser

- VIN Diagnosis:

Colposcope Biopsies

- Treatment :-
- Low grade -- observation
- VIN3 -- local excision or laser vaporization
- Topical immunomodulator: imiquimod
- Extensive: vulvectomy (vulvar skin is removed and replaced by split

thickness skin graft)



Invasive valvular cancer

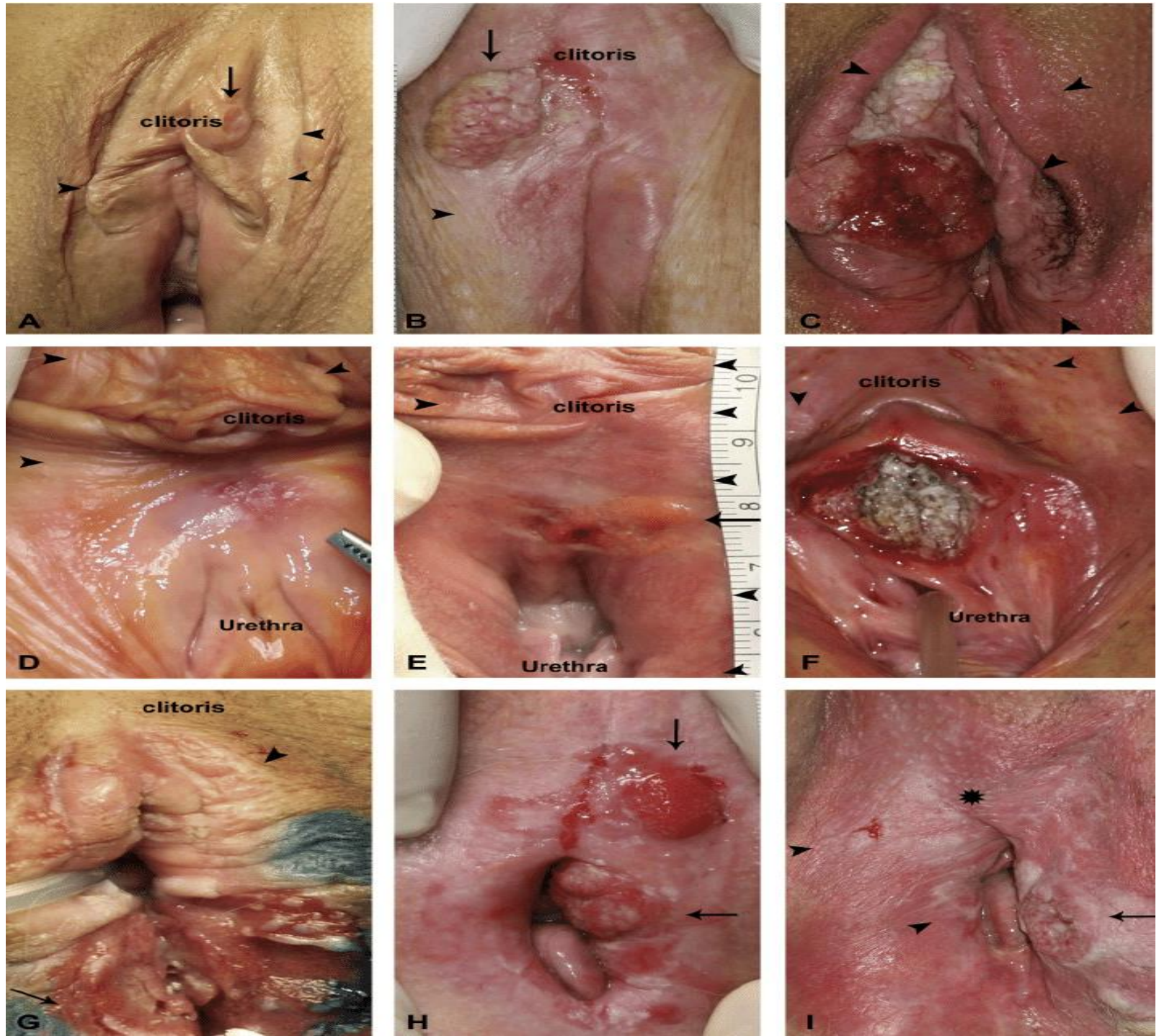
- 1. Squamous cell carcinoma (the most common 90%)
- 2. Malignant melanoma (second most common)
- 3. Basal cell carcinoma (rare)
- 4. Vulvar sarcoma (1% of vulvar malignancies)

Squamous cell carcinoma

- Account about 90% of vulval cancers
- Most lesions occur on the labia majora, the labia minora are the next most common. Less commonly, the clitoris or the perineum is involved

- Clinical features:
- Most patients present with vaginal lump
- Long standing pruritus
- The lesions may be raised, ulcerated, pigmented, or warty in appearance

- Definitive diagnosis requires biopsy of the lesion, with the patient under local anesthesia


clitoris
A
clitoris
B
C
clitoris
Urethra
D
clitoris
Urethra
E
clitoris
Urethra
F
clitoris
G
H
I

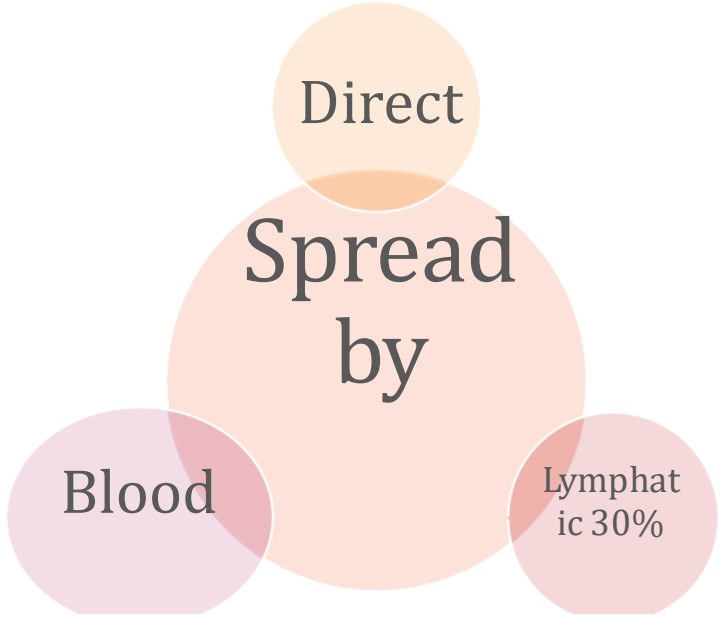
Methods of spread

Vulvar cancer spreads by direct extension to adjacent structures, such as the vagina, urethra and anus

By lymphatic embolization to regional Lymph nodes [30% incidence]

By hematogenous spread to distant site, including lungs, liver and bone

Metastasis is related to the size of the lesion



FIGO staging system

Hybird of a clinical and surgical staging approach

In vulvar cancer staging, tumor size, depth of invasion, and local extension are determined mostly on physical examination and vulvar biopsy, and lymph nodes Are evaluated by physical examination, imaging, and lymphadenectomy or sentinel lymph node biopsy (SLNB).

combined system was implemented because lymph node metastases are the most important prognostic factor for vulvar cancer

Carcinoma of the vulva: FIGO staging (2021)

Stage	Description
I	Tumor confined to the vulva
IA	Tumor size ≤2 cm and stromal invasion ≤1 mm*
IB	Tumor size >2 cm or stromal invasion >1 mm*
II	Tumor of any size with extension to lower one-third of the urethra, lower one-third of the vagina, lower one-third of the anus with negative nodes
III	Tumor of any size with extension to upper part of adjacent perineal structures, or with any number of nonfixed, nonulcerated lymph nodes
IIIA	Tumor of any size with disease extension to upper two-thirds of the urethra, upper two-thirds of the vagina, bladder mucosa, rectal mucosa, or regional lymph node metastases ≤5 mm
IIIB	Regional¶ lymph node metastases >5 mm
IIIC	Regional¶ lymph node metastases with extracapsular spread
IV	Tumor of any size fixed to bone, or fixed, ulcerated lymph node metastases, or distant metstases
IVA	Disease fixed to pelvic bone, or fixed or ulcerated regional¶ lymph node metatases
IVB	Distant metastases

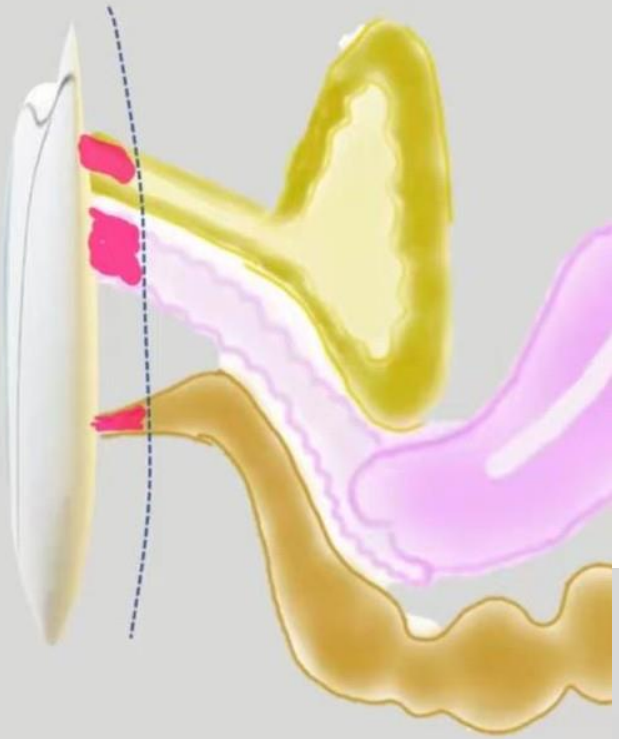
Stage I : confined to t

Stage IA

Stage II

Lower 1/3 of

- Urethra
- Vagina
- Anus

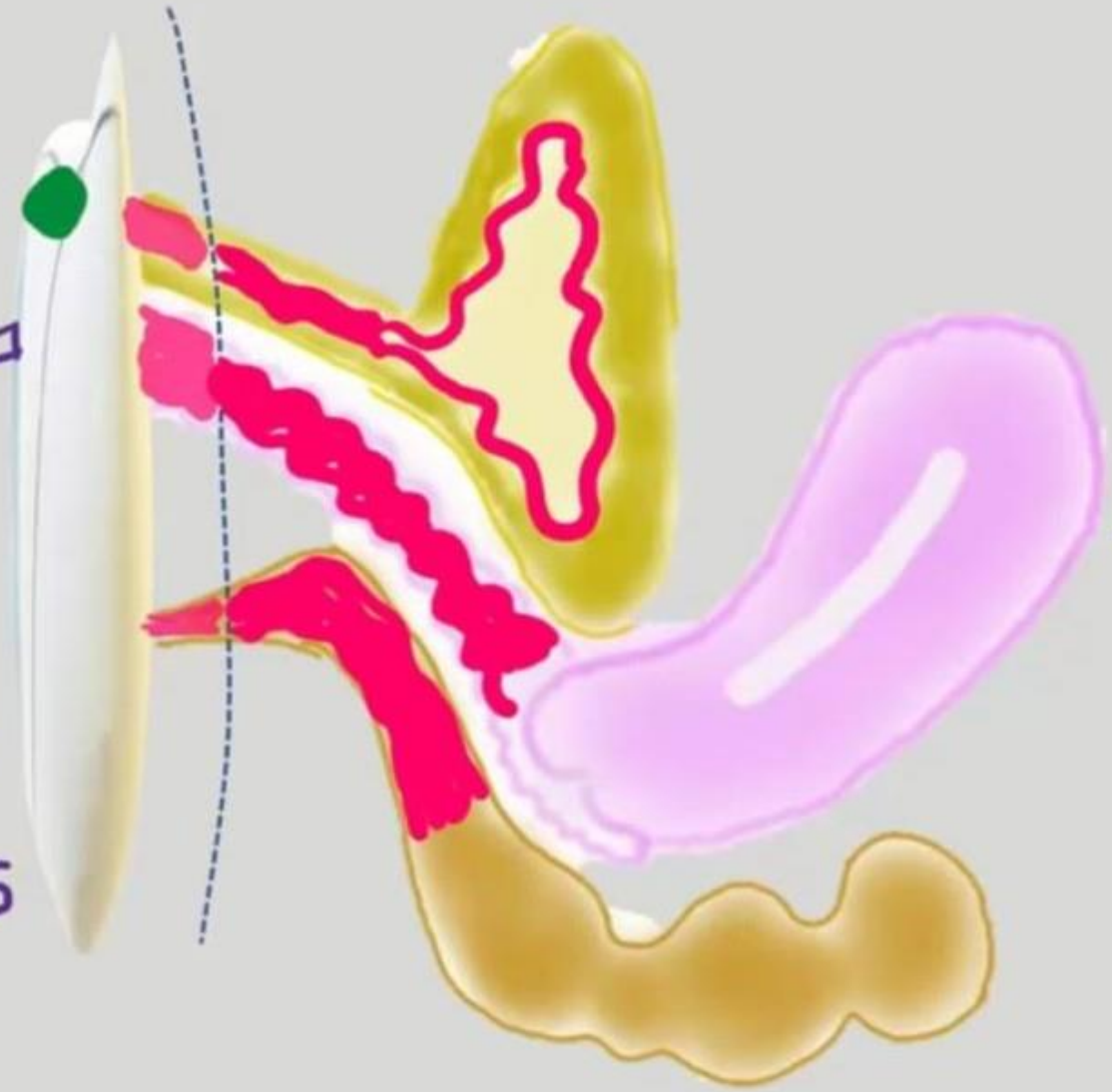


III A

- Upper 2/3 urethra
- Bladder mucosa
- Upper 2/3 vagina
- Rectal mucosa
- Regional LN < 5 mm

III B

LN > 5mm



III C

LN with extraca spread

IV A

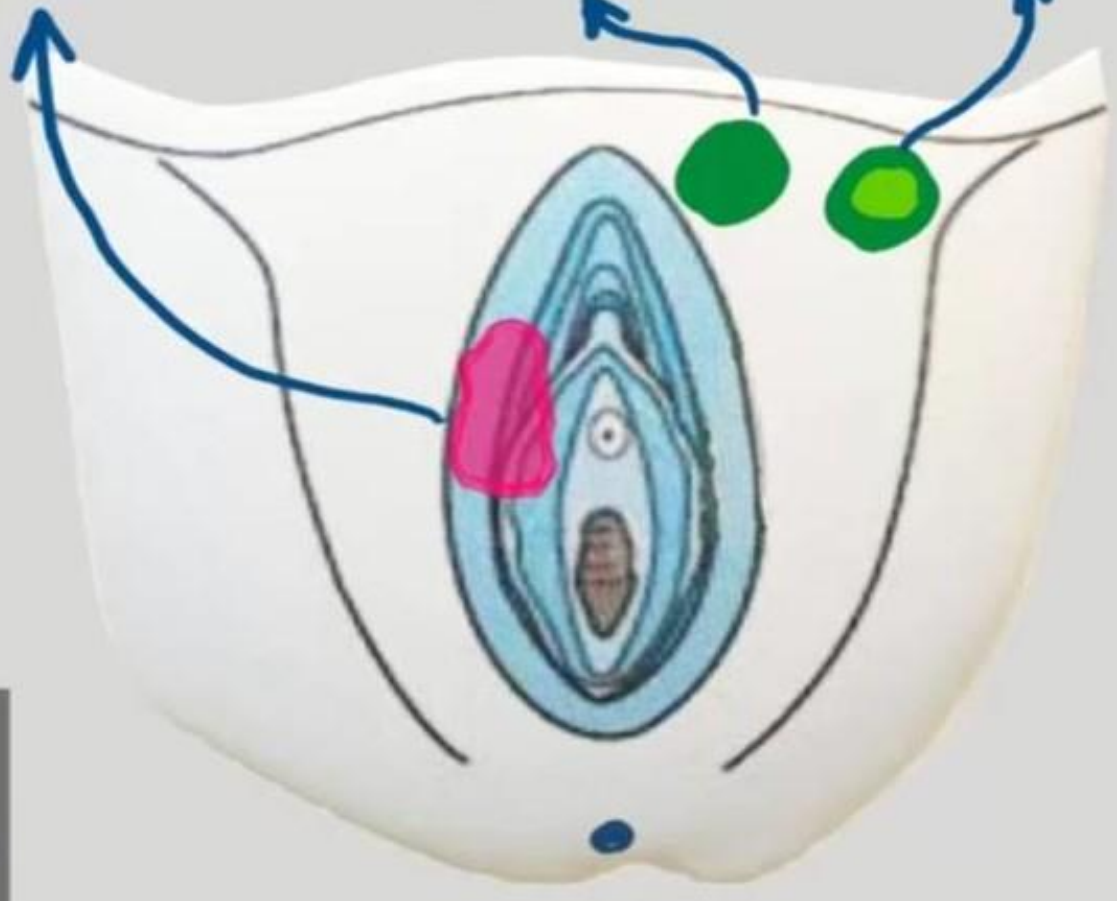
Lesion

Fixed

LN

Fixed

Ulcerated



IV B

Distant metastasis

MANAGEMENT

Wide local excision only: used only for stage Ia; risk of metastasis is negligible so no lymphadenectomy is needed

– Ipsilateral inguinal dissection :unifocal lesion <2 cm in diameter & >2cm from midline AND no palpable nodes
– Bilateral inguinal dissection centrally
located lesion OR palpable inguinal nodes or positive ipsilateral nodes
unilateral dissection have lower risk of comp. like lymphedema in comparison to bilateral dissection & what's better than both is SLNB

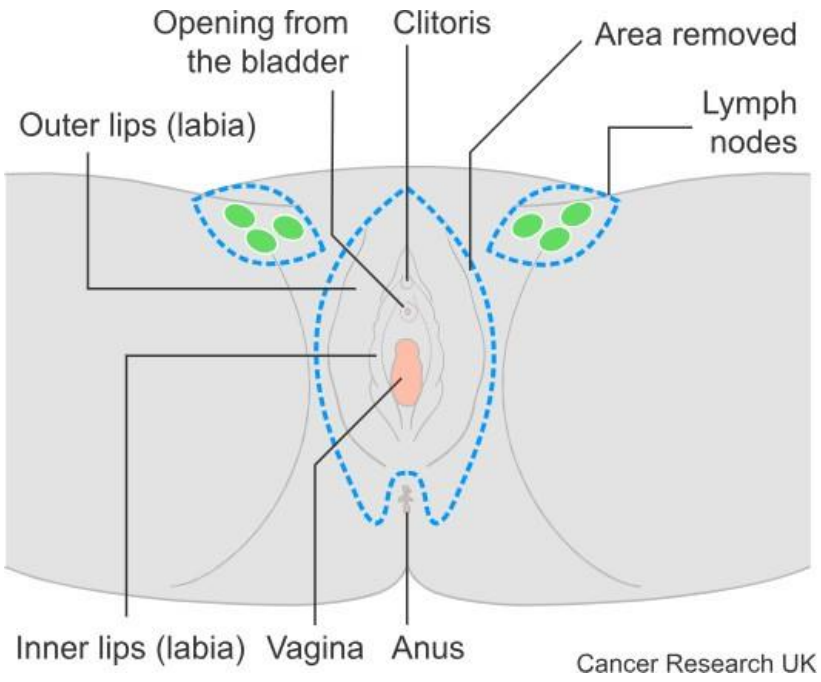
modifed radical vulvectomy: as hemivulvectomy,anterior vulvectomy,posterior vulvectomy for T2

chemo radio therapy

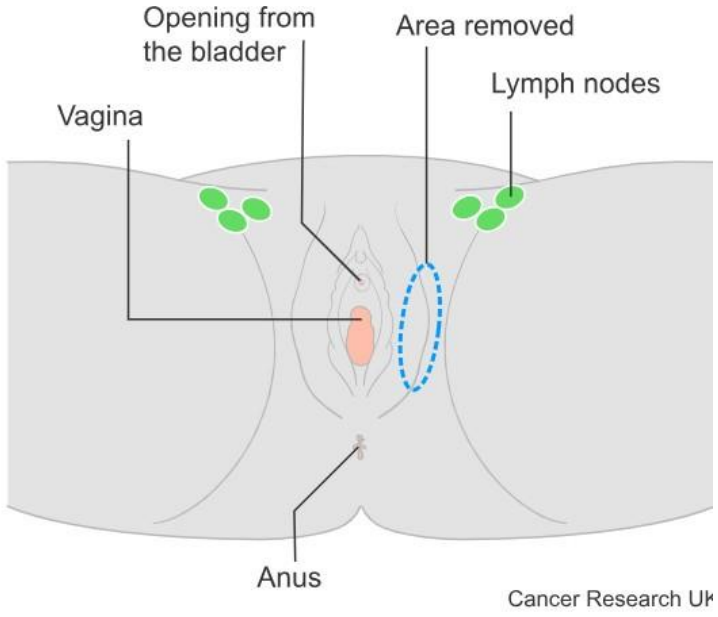
Radical vulvectomy: involves removal of labia minora & majora, clitoris, perineum, perineal body, mons pubis; seldom performed due to high morbidity

A tumor-free margin ≥1 cm is required since a smaller margin is associated with an increased local recurrence risk

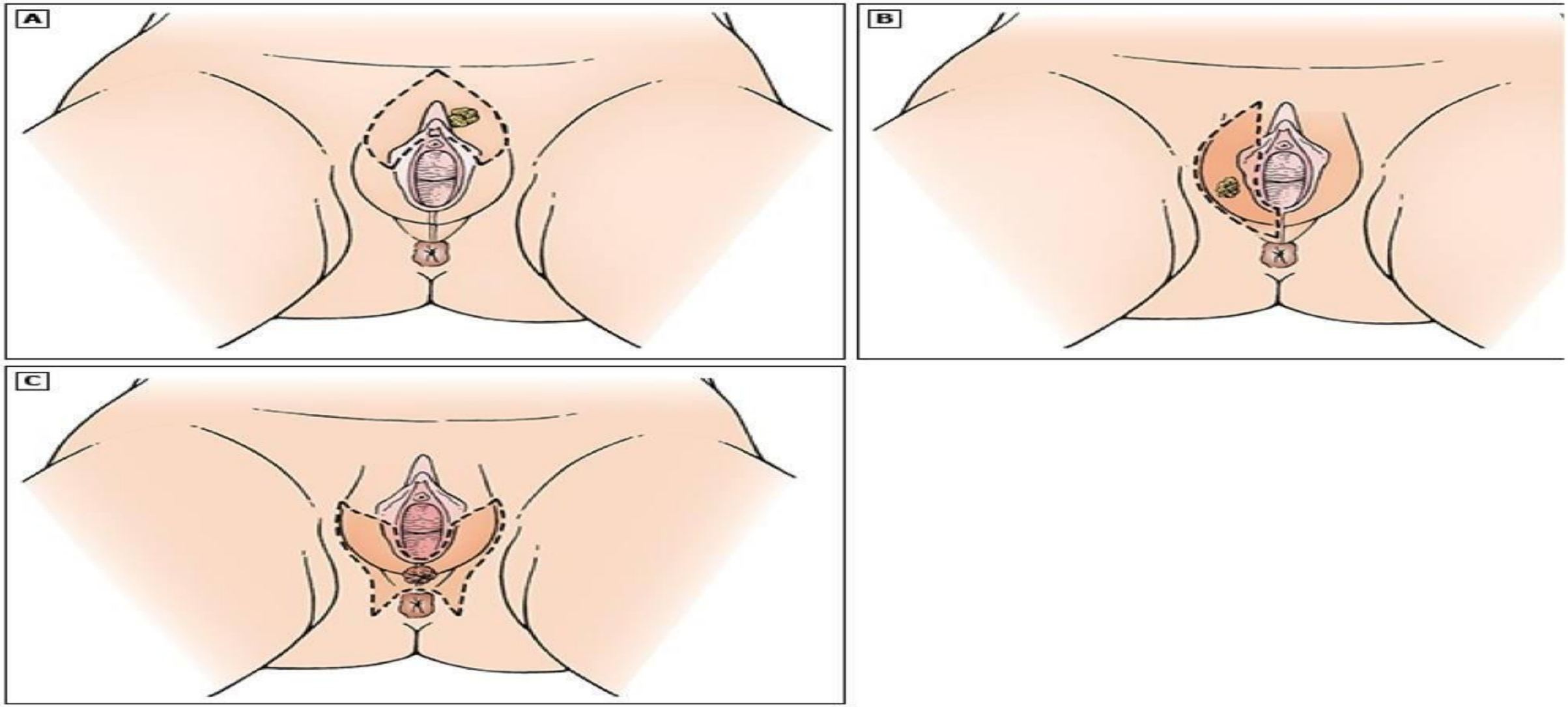
Radical vulvectomy



Wide local excision



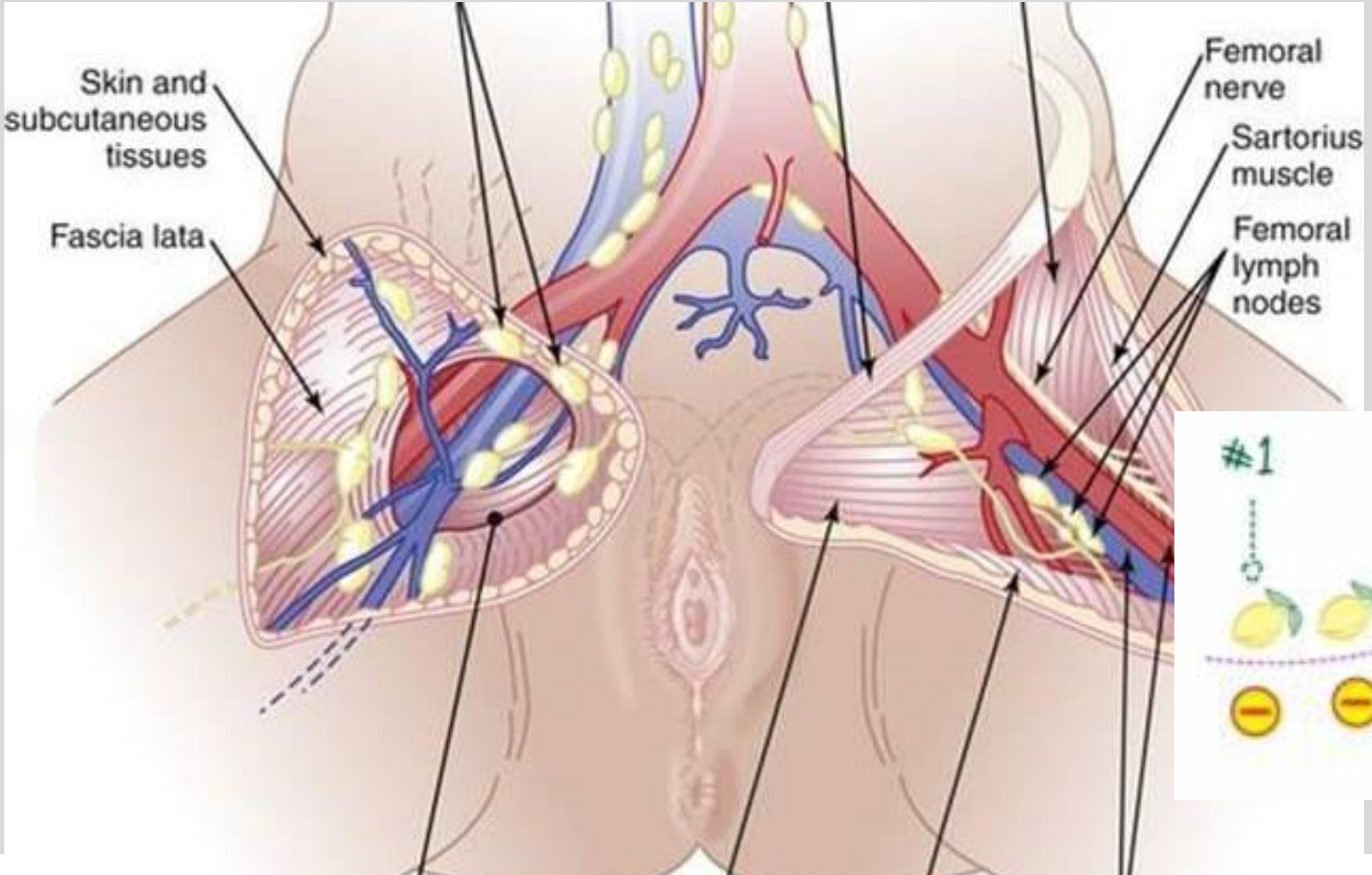
Modified radical vulvectomy

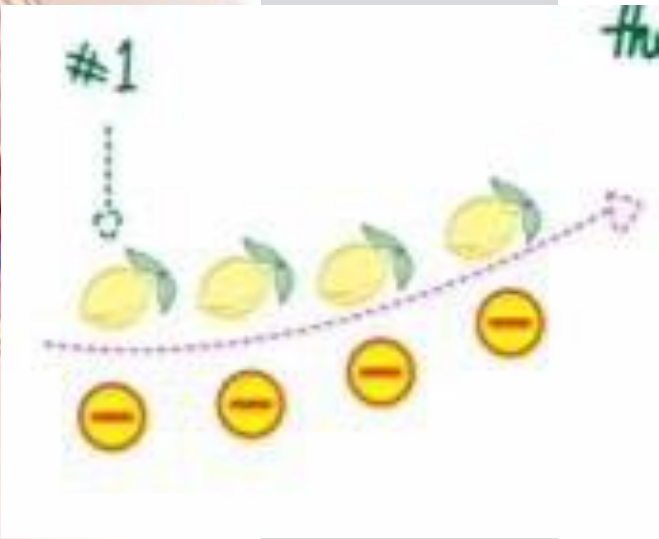


(A) Anterior hemivulvectomy.

(B) Right hemivulvectomy with clitoral sparing.

(C) Posterior hemivulvectomy.


Skin and subcutaneous tissues
Fascia lata
Femoral nerve
Sartorius muscle
Femoral lymph nodes


#1

Medical therapy(chemo/radiation)

used for patients who cannot undergo surgery or used pre-operatively for patients who have advanced vaginal cancer to shrink the primary tumor(palliative or neoadjuvant)

- Prognosis:
- the overall survival rate for vulvar CA >> 70%
- The most important prognostic factor is the status of the groin LN
- Negative LN >> 5 y survival rate 90%
- Positive LN >> 5 y survival rate 50%

Pathology

Adenocarcinoma; carcinoma in situ

Low risk (< 15%) of underlying invasive Paget disease/invasive adenocarcinoma (unlike Paget disease of the breast which is always associated with underlying carcinoma)

Clinical features

Eczematoid lesions

Raised, well-demarcated borders

Erythematous patches with white scaling

Crusting and ulcerations

Local pruritus

Management of paget disease

Local superficial excision with 5- to 10-mm margins

01

-If the disease involves the anus, colonoscopy should be undertaken to exclude an underlying rectal cancer,

02

whereas if the urethra is involved, cystoscopy should be performed to exclude an underlying urothelial Cancer

03

-If an underlying invasive carcinoma is present, the treatment

should be the same as for other invasive vulvar cancers.

2)Malignant Melanoma

Is the second most common type of vulvar cancer

- De novo / from pre-existing junctional or compound nevus

- occur in post menopausal white women

- Positive for S100 immune stain

Malignant Melanoma

40-5 Malignant melanoma arising from the rig

Clinical Features:

- *New pigmented lesion*
- *Histologic diagnosis*
-
  - *Usually <1 mm in depth*
  - *Or less than granular layer of theepidermis*

Management

- **Less than 1 mm in depth**
- Radical local excision with 1 cm safety margin
- **More than 1 mm in depth**
- Radical local excision with lymphadenectomy

Prognosis:

- The overall 5-year survival rate for vulvar melanomas is approximately 30%

- *3) Bartholin gland carcinoma*

is a type of cancer of the vulva arising in the Bartholin gland.
It typically presents with a painless mass at one side of the vaginal opening in a female of middle-age and older, and can appear similar to a Bartholin cyst. The mass may be big or small, may be deep under skin or appear nearer the surface .with overlying ulceration

- ***Management***

hemivulvectomy and radiation

Barthlin carcinoma tissue cross section

4) vulvar sarcoma

Vulvar cancer commonly forms as a lump or sore on the vulva that often causes itching. Though it can happen at any age, vulvar cancer is usually diagnosed in older adults.

VAGINAL INTRAEPITHELIAL NEOPLASA(VAIN)

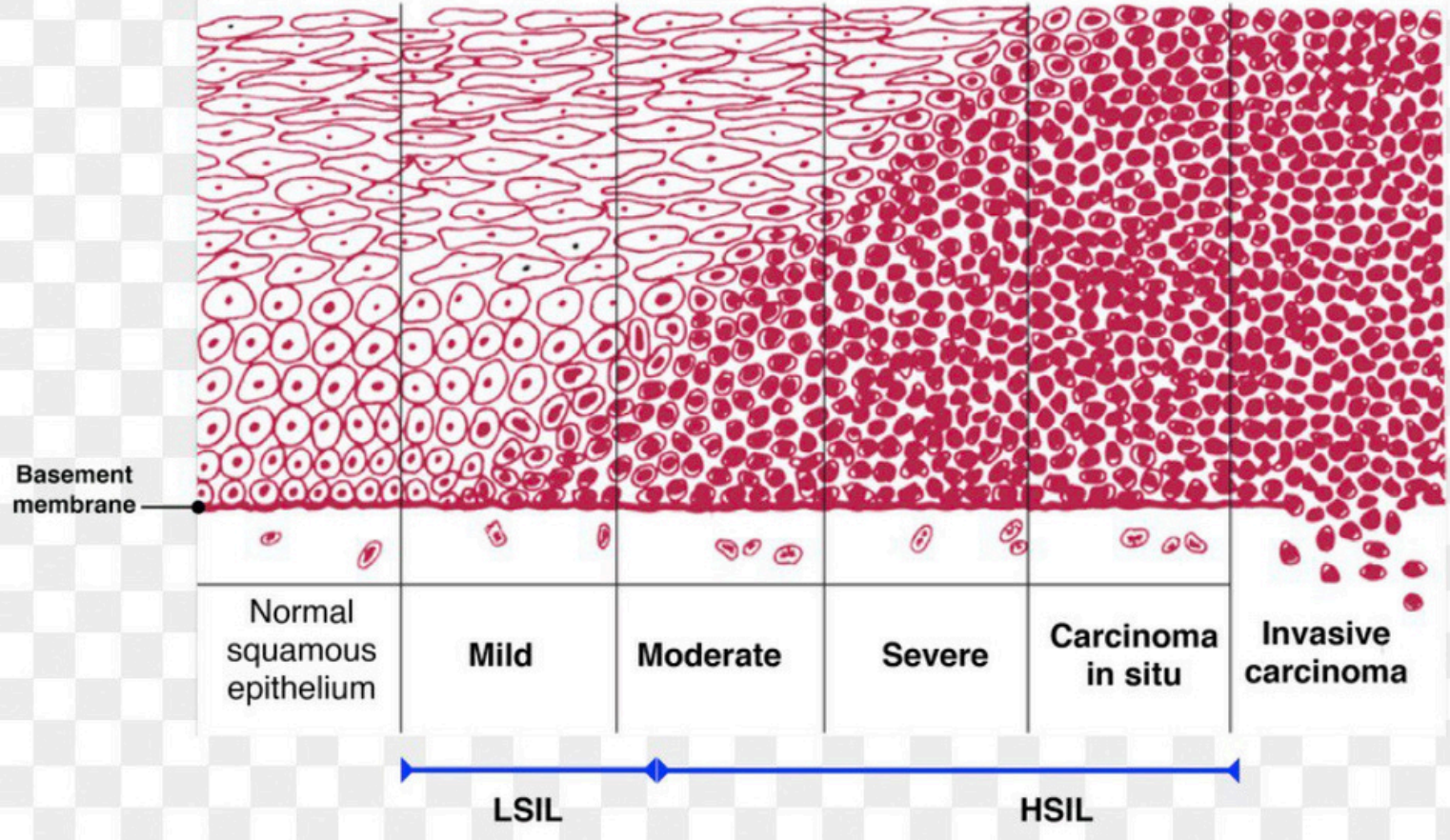
- Carcinoma in situ of the vagina (vaginal intraepithelial neoplasia [VAIN])
- Is much less common than its counterparts on the cervix or vulva.
- Most lesions occur in the upper third of the vagina
- The patients are usually asymptomatic.

- # RISK FACTORS
- 1- HPV INFECTION
-
- 2- PATIENTS WITH A PAST HISTORY OFIN SITU OR INVASIVE CARCINOMA OFTHE CERVIX OR VULVA
-
- 3-PATIENTS WHO RECEIVEDIRRADIATIO N FOR CERVICAL CANCER

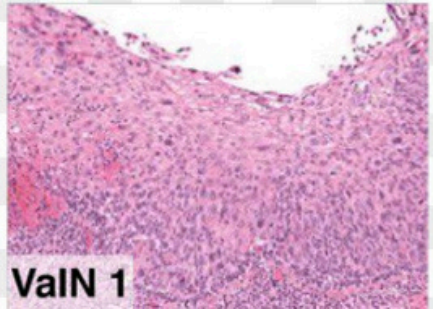
vaginal intraepithelial neoplasia (VAIN)can be classified into three types:

- *VAIN I involves the basal epithelial layers*
- *VAIN 2 involves up to two-thirds of the vaginal epithelium*
- *VAIN 3 involves most of the vaginal epithelium (carcinoma in situ)*

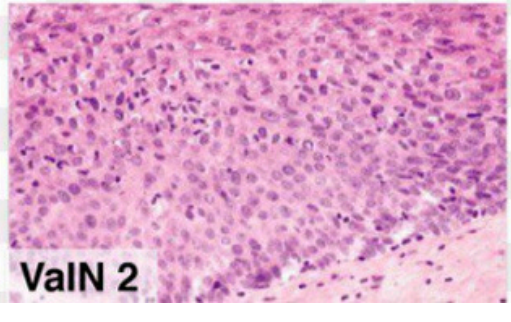
Vaginal Intraepithelial Neoplasia



- Mild dysplasia
- Abnormal cells can be found in 1/3 of the vaginal epithelium



- Moderate dysplasia
- Abnormal cells can be found in 2/3 of the vaginal epithelium



- Severe dysplasia
- Abnormal cells can be found in more than 2/3 of the vaginal epithelium and up to the full thickness of the lining

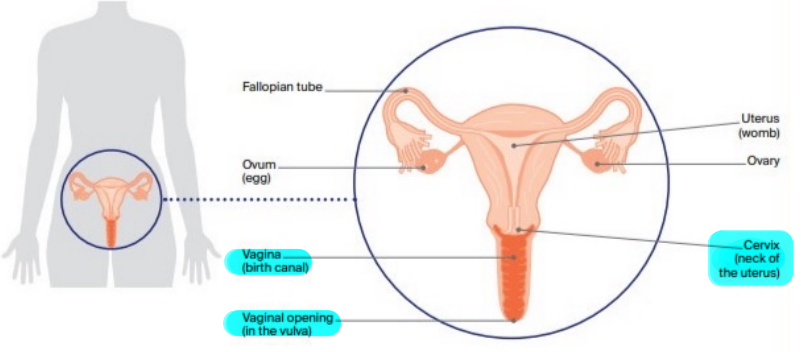
DIAGNOSIS

- DIAGNOSIS–Definitive diagnosis by vaginal biopsy with directed colposcopy

TREATMENT

- Patients with **VAIN I and II** can be monitored and typically will not require therapy
- The goals of treatment of **VAIN III** are ablation of the intraepithelial lesion while preserving vaginal depth, caliber, and sexual function
- Treatment modalities include:
- 1-laser ablation
- 2-exicision
- 3-5-flourouracil
- 4-partial or total vaginectomy

Vaginal Cancer



The vagina is part of the female reproductive system. It's a muscular tube that connects the uterus with the outer genitals. The vagina is sometimes called the birth canal.

Several different types of cells and tissues are found in the vagina:

- The lining of the vagina has a layer of flat cells called **squamous** cells. This layer of cells is also called **epithelium** or **epithelial lining** because squamous cells are a type of epithelial cell.
- The vaginal wall underneath the epithelium is made up of connective tissue, muscle, lymph vessels, and nerves.
- Glands near the opening of the vagina make mucus to keep the vaginal lining moist.

Vaginal Cancer Causes and Risk factors

- are 60 or older
- have the human papilloma virus (HPV) types 16 and 18
- took diethylstilbestrol (DES)
- smoking
- a precancerous condition called valvar seqamous intraepethial lesion (SIL) that often has no symptoms

Vaginal Cancer Symptoms

Vaginal cancer, especially at the precancerous and early stages, **may not cause any symptoms.**

Common signs for more advanced vaginal cancer include:

- Unusual vaginal bleeding (i.e., between menses, after intercourse, new postmenopausal bleeding)
- Pain (vaginal, vulvar, lower abdominal/pelvic, back or flank)
- Problems with urination or bowel movements
- Watery vaginal discharge
- Lump or mass in the vagina

- cancer that begins in the vagina is rare
  (accounts for approximately 1% to 3% of gynaecological malignancies)

- the most common site of vaginal carcinoma :
  in the upper third of the posterior vaginal wall

- invasive vaginal cancer

- mode of spread :
  - direct spread (bladder - urethra - rectum)
  - hematogenous
  - lymphatic

Types Of Vaginal Cancer

There are four types of vaginal cancer, depending on where the cancer began.

1: Squamous Cell Carcinoma

2: Adenocarcinoma

3: Melanoma

4: Sarcoma

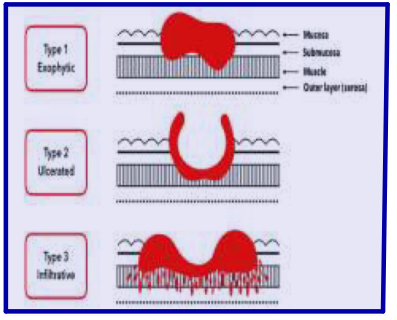
Squamous Cell Carcinoma

- **Begins in** : thin , flat cells which line the surface of the vagina (squamous cells)

- Most common type of vaginal cancers

- **They tend to occupy in** :
  in the posterior wall of the upper third of the vagina

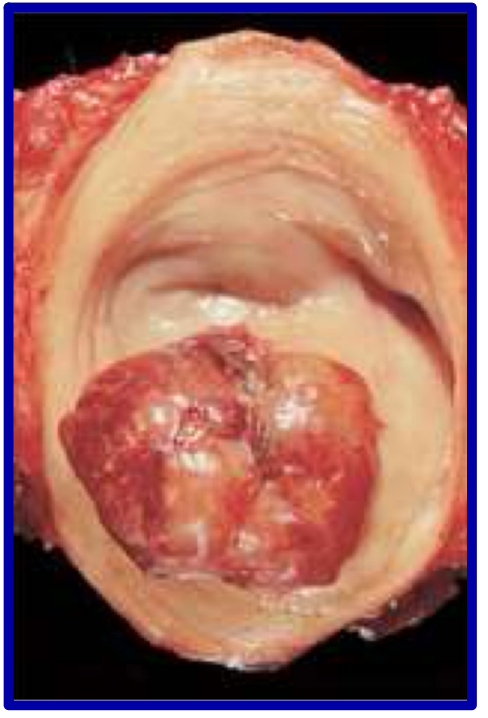
- **Growth patterns** :
  - ulcerative
  - exophytic
  - infiltrative



- **Definitive diagnosis :**
  punch biopsy
  Ct scan of the abdomen and chest for identification of metastasis
  MRI scan of the pelvis

- **Preferable site of metastasis :**
  the pelvic organs
  * bladder
  * urethra
  * rectum

- **Mode of spread :**
  hematogenous or lymphatic

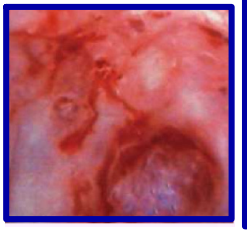


Adenocarcinoma Of The Vagina & DES Exposure

- **Begins in** : the glandular cells on the surface of the vagina

- **It was linked to** vaginal clear cell adenocarcinoma
  (it's precursor being vaginal adenosis)

- **Seen in** daughters of women who received
  diethylstilbestrol during pregnancy



a common medical malpractice in the first half of the last century was prescribing DES for pregnant women (it was though to maintain and protect the pregnancy)

Vaginal Malignant Melanoma

- **Begins in** : the pigment producing cells (melanocytes)
- **Occur mostly in** post menopausal women
- **Most frequent location** : distal anterior wall
- Radical surgical **treatment** as well as conservative local excision with post operative radiotherapy have been shown to obtain similar results
- poor prognosis
- 5 years survival rates around 5 - 10 %

igure 3. Malignant melanoma of the cervico-vaginal region with operative tissue (patient 9).

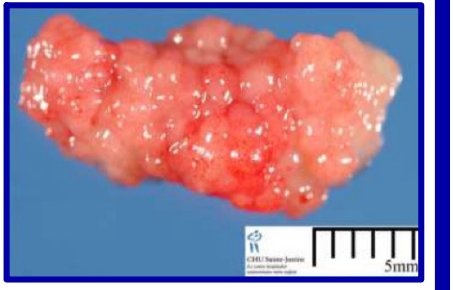
Sarcoma Botryoides (Grape - Like)

- **Begins in** : the connective tissue cells or muscles cells in the walls of the vagina

- It is a form of embryonal rhabdomyosarcoma
- Affecting the paediatric population (mean : 2-3 years old)

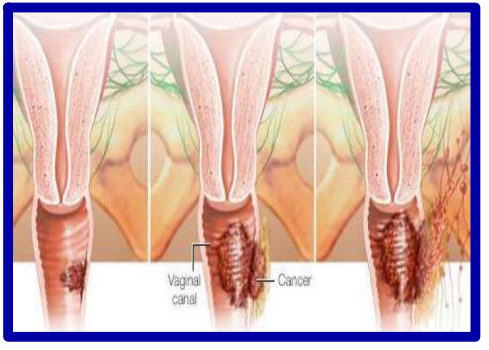
- The mass is highly malignant

- **The treatment regimes range from** local excision of the tumor to radical hysterectomy with adjuvant chemotherapy and / or radiotherapy



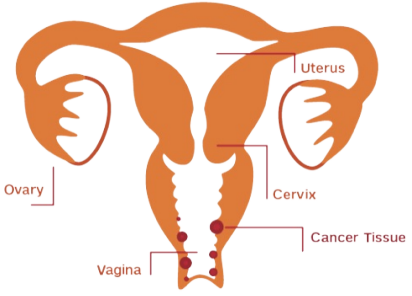
Staging

INTERNATIONAL FEDERATION OF GYNECOLOGY AND OBSTETRICS STAGING OF VAGINAL CANCER	
Stage	**Description**
I	Carcinoma limited to the vaginal wall
II	Carcinoma has involved the subvaginal tissue but has not extended onto the pelvic side wall
III	Carcinoma has extended to the pelvic side wall
IV	Carcinoma has extended beyond the true pelvis or has involved the mucosa of the bladder or rectum
IVA	Spread to bladder or rectum
IVB	Spread to distant organs



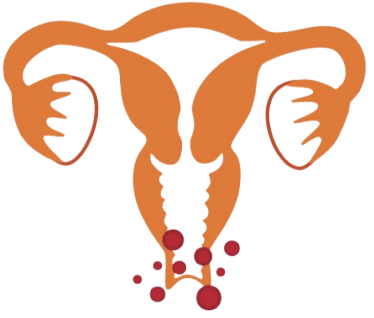
Vaginal Cancer

Stage 1



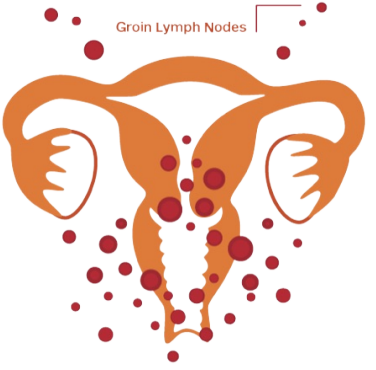
Cancerous cells are found in the vaginal wall.

Stage 2



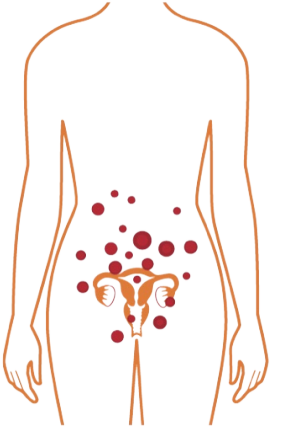
The cancer has spread to the tissue next to the vagina.

Stage 3



The cancer has spread to the nearby lymph nodes or elsewhere in the pelvis.

Stage 4



The cancer has spread beyond the pelvis to other parts of the body.

Diagnosis

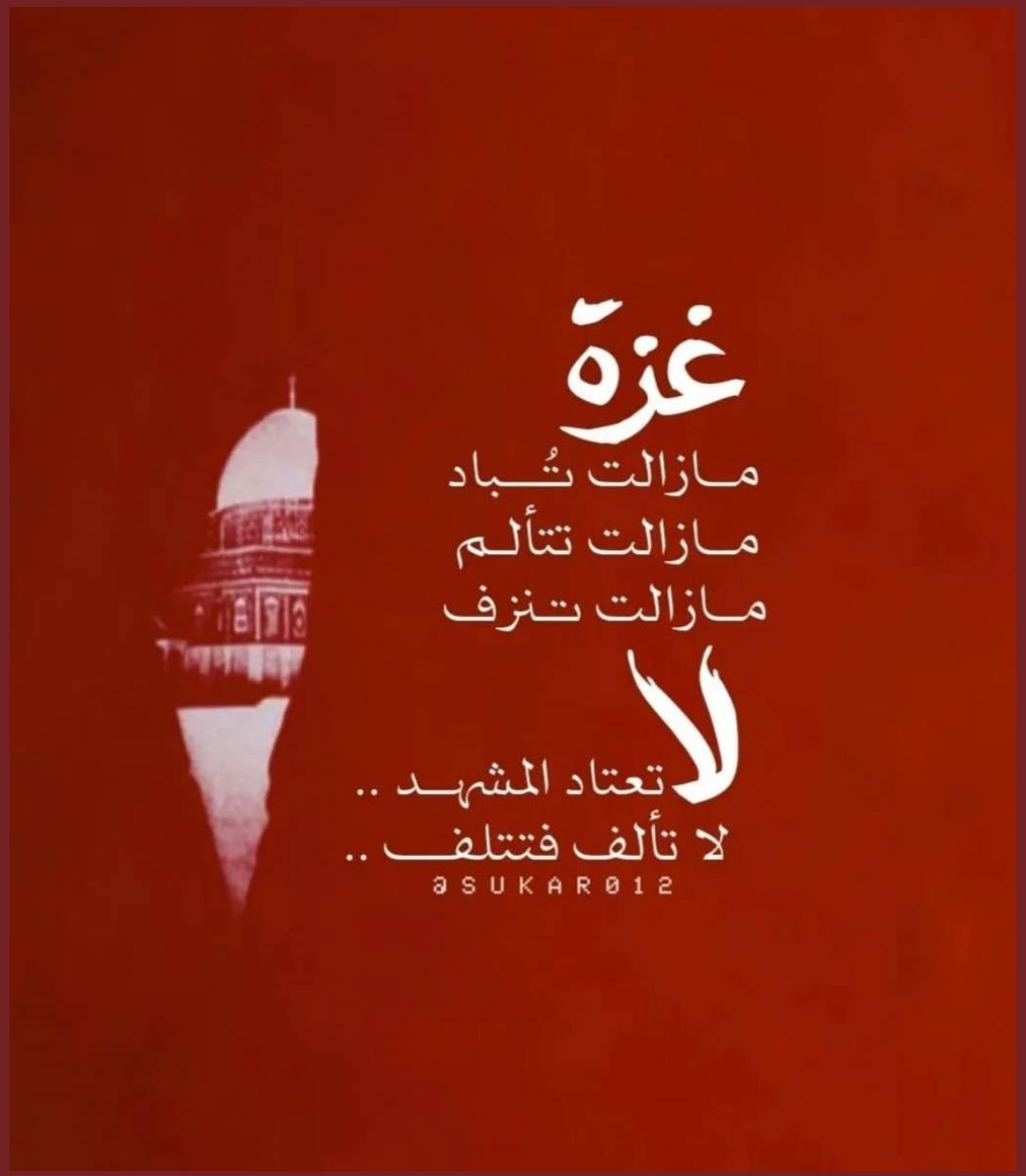
- Pelvic examination
- Colposcopy: if abnormal cytology results without a clearly visible lesion during pelvic examination
- Biopsy of mass to determine histopathology

Treatment

- **Chemoradiation is the main method of treatment for primary vaginal cancer**

Stage 1	Stage 2	Stage 3
Tumor < 0.5 cm deep surgery : local excision or total vaginectomy with reconstruction radiotherapy Tumor > 0.5 cm deep wide vaginectomy , pelvic lymphadenectomy + reconstruction of vagina radiotherapy	radical vaginectomy, lymphadenectomy radiotherapy	radiotherapy

THANK YOU


غزة
مازالت تُباد
مازالت تتألم
مازالت تنزف
لا
تعتاد المشهد ..
لا تألف فتتلف ..
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