Diseases of the vulva
1. Bartholin Cyst

- Infection of the Bartholin gland produces an acute inflammation within the gland (adenitis) and may result in an abscess.

**Bartholin duct cysts**

- Are relatively common, and result from obstruction of the duct by an inflammation
- The cyst is lined by metaplastic squamous epithelium.
- They produce pain and local discomfort
Bartholin cyst
2. Non-Neoplastic Epithelial Disorders

- Are heterogeneous group of lesions of the vulva presents as white, mucosal thickening
- May produce itching and scaling.
- Are of unknown etiology are classified into two categories which may coexist and often multiple, making their clinical management particularly difficult
(1) **Lichen sclerosus**

- The lesions appear clinically as white lesions. Time may extend and coalesce, and when involve the entire vulva, the labia become atrophic and stiffened.

- Is most common in postmenopausal women.

- It may also be encountered elsewhere on the skin.
The pathogenesis is uncertain increased frequency of autoimmune disorders in these women suggests an autoimmune reaction may be involved.

Although the lesion is not pre-malignant by itself, women with symptomatic lichen sclerosus have a somewhat increased chance of developing squamous cell carcinoma in their lifetime.
2. Squamous Cell Hyperplasia

- Is a nonspecific condition resulting from rubbing or scratching of the skin to relieve pruritus.

- It is marked by

  a. Epithelial thickening, with hypergranulosis
  b. Significant surface hyperkeratosis
  c. Leukocytic infiltration of the dermis
  d. No atypia.
3. Condyloma acuminata

- A benign exophytic lesions
- Are sexually transmitted, benign lesions caused by low oncogenic risk HPVs, 6 and 11
- They are more frequently multifocal
- They may involve vulvar, perineal, and perianal regions, vagina and less commonly, the cervix
- Are not considered precancerous lesions
Condyloma acuminatum
Koilocytic atypia
4. Vulvar Intraepithelial Neoplasia and Vulvar Carcinoma

- Carcinoma of the vulva is an uncommon malignant neoplasm represents about 3% of all genital cancers in the female;

- Approximately two thirds occur in women older than 60 years.

- Squamous cell carcinoma is the most common histologic type of vulvar cancer.
Vulvar squamous cell carcinomas are divided into two groups:

1. *Basaloid and warty carcinomas*

- Accounts for 30% of cases of vulvar carcinomas
- Related to infection with high oncogenic risk HPVs
- Develop from a precancerous in situ lesion called *classic vulvar intraepithelial neoplasia* (classic VIN)
- It most commonly occurs in reproductive-age women, and the risk factors are:
  a. Young age at first intercourse,
  b. Multiple sexual partners
  c. Male partner with multiple sexual partners
Vulvar intraepithelial neoplasia (VIN)

1. Frequently multicentric in the vulva, a
2. 10% to 30% of patients with VIN also have vaginal or cervical HPV-related lesions
3. The majority of cases of classic VIN are positive for HPV 16, and less frequently for other high-risk HPV types, like HPV 18 or 31.
Note:

- Spontaneous regression of VIN lesions has been reported, usually in younger women.
- The risk of progression to invasive carcinoma is higher in women older than 45 years of age or in women with immunosuppression.
Gross of warty carcinoma of vulva
- May be exophytic or indurated, with ulceration.

On histologic examination, are
a. An infiltrating tumors
b. Composed of nests and cords of small, tightly packed malignant squamous cells lacking maturation and may show necrosis
2. Non-HPV-related *keratinizing squamous cell carcinomas*

- Account for 70% of all cases of vulvar carcinomas
- Not related to HPV infection (70% of cases).
- Frequently arise in individuals with long-standing lichen sclerosus or squamous cell hyperplasia.
- The mean age of the patients is 76 years.
- The immediate premalignant lesion is referred to as *differentiated vulvar intraepithelial neoplasia* (differentiated VIN) of unknown etiology.

- It is postulated that chronic epithelial irritation in lichen sclerosus or squamous cell hyperplasia may contribute to a gradual evolution of the malignant phenotype.
Gross
- May develop as nodules in an inflammatory background and may be misinterpreted as dermatitis for long periods.
- Micro: Keratinizing squamous cell carcinoma

Note:
- The clinical manifestations are nonspecific, including local discomfort, itching, and the superficial secondary infection, may underscore the importance of repeated examination in women with vulvar inflammatory disorders.)
- Patients with lesions less than 2 cm in diameter have a 60% to 80% 5-year survival after treatment with vulvectomy and lymphadenectomy.

- Large lesions with lymph node involvement have a 5-year survival rate of less than 10%.
Verrucous carcinomas of vulva
- Are fungating tumors resembling condyloma acuminatum,
- Not associated with papillomaviruses.
- Rarely metastasize
- Successfully cured by wide excision.
Extramammary Paget Disease

- This is rare lesion of the vulva, and sometimes the perianal region and presents as a pruritic, red, sharply demarcated, area
- Most commonly affects the labia majora.

**Note:**
- In contrast to Paget disease of the nipple, in which 100% of patients show an underlying ductal breast carcinoma, vulvar lesions are most frequently confined to the epidermis of the skin.
- Paget disease is treated with wide local excision
  With high recurrence rate
- Typically, Paget cells spread beyond the confines of the grossly visible lesion, and therefore are frequently present beyond the margins of surgical excision.
- It may persist for many years, or decades, without invasion or metastases.
- Invasion develops rarely, and in such patients the prognosis is poor
Diseases of Vagina
1. **Vaginal adenosis**

- Is a remnant of endocervical-type epithelium that during embryonal development extends from the endocervix and covers the ectocervix and upper vagina.

- Adenosis, while normally present in a small percentage of adult women, has been reported in 35% to 90% of women exposed.
to Diethylnsillbesterol DES in utero

- Adenosis presents clinically as red, areas contrasting with the normal pale-pink vaginal mucosa

- On microscopic examination, it is composed of columnar mucinous epithelium

Note: Rare cases of clear cell carcinoma of vagina in DES-related adenosis were recorded in teens and young women in the 1970s and 1980s, resulting in discontinuation of DES treatment
Vaginal adenosi
2. Gartner duct cysts of vagina

- Are relatively common lesions found along the lateral walls of the vagina and derived from wolffian (mesonephric) duct rests.

3. Vaginal carcinoma

- The most common malignant tumor of the vagina is carcinoma metastatic from the cervix,
- Followed by a primary squamous cell carcinoma of the vagina which are uncommon accounting for
about 1% of malignant neoplasms in the female genital tract.

- All of the tumors are squamous cell carcinomas associated with high oncogenic risk HPVs.

Note: The greatest risk factor is a previous carcinoma of the cervix or vulva and 1% to 2% of women with an invasive cervical carcinoma eventually develop a vaginal squamous cell carc
Primary squamous cell carcinoma of the vagina arises from a premalignant lesion, *vaginal intraepithelial neoplasia* (VaIN).

Most often the invasive tumor affects the upper posterior vagina.

Primary carcinomas in the lower two thirds of the vagina metastasize to the inguinal nodes, whereas upper lesions tend to involve the regional iliac nodes.
5. Embryonal Rhabdomyosarcoma

- Called sarcoma botryoides of the vagina
- This uncommon vaginal tumor is
- Most frequently found in infants and in children younger than 5 years of age
- This tumor tend to invade locally
- It causes death by penetration into the peritoneal cavity or by obstruction of the urinary tract.
- Conservative surgery, coupled with chemotherapy, seems to offer the best results in cases diagnosed sufficiently early.

- **Gross appearance**
  1. These tumors tend to grow as polypoid, rounded, bulky masses that sometimes fill and project out of the vagina;
  2. They have the appearance and consistency of grapelike clusters
Sarcoma botryodes
Sarcoma Botryodes