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Executive member of CSEPI and Past National President of IASSTD and AIDS, Convenor of IASMP and SIG Member, IADVL

Awarded Oration of Silver Jubilee of Institute of Venereology, Oration of Dr. T.V. Venkatesan, Oration of Professor Dr. Thambiah and Dr. R.V Rajam endowment Lecture

Lifetime Achievement Award , in SHAFT 2023

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Balanoposthitis and Vulvovaginitis

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Overview

- Etiology
- Clinical Manifestations
- Investigations
- Diagnosis
- Predisposing factors
- Management

Balano-posthitis

Balanoposthitis

- Inflammation of Prepuce – Posthitis
- Inflammation of Glans Penis – Balanitis
- Commonly occur together, so called as **"BALANOPOSTHITIS"**
- Overall incidence is raising nearly 20% in any community.

ETIOLOGY

- Multi-factorial etiology
  - 1. Infections
  - 2. Irritants
  - 3. Secondary to Trauma – Appearing as balanitis
  - 4. Fixed Drug eruption – DD for Balanoposthitis
  - 5. Premalignant conditions
  - 6. Malignancy – Early stages
  - 7. Non- Venereal Dermatological conditions
  - 8. Miscellaneous

Infections

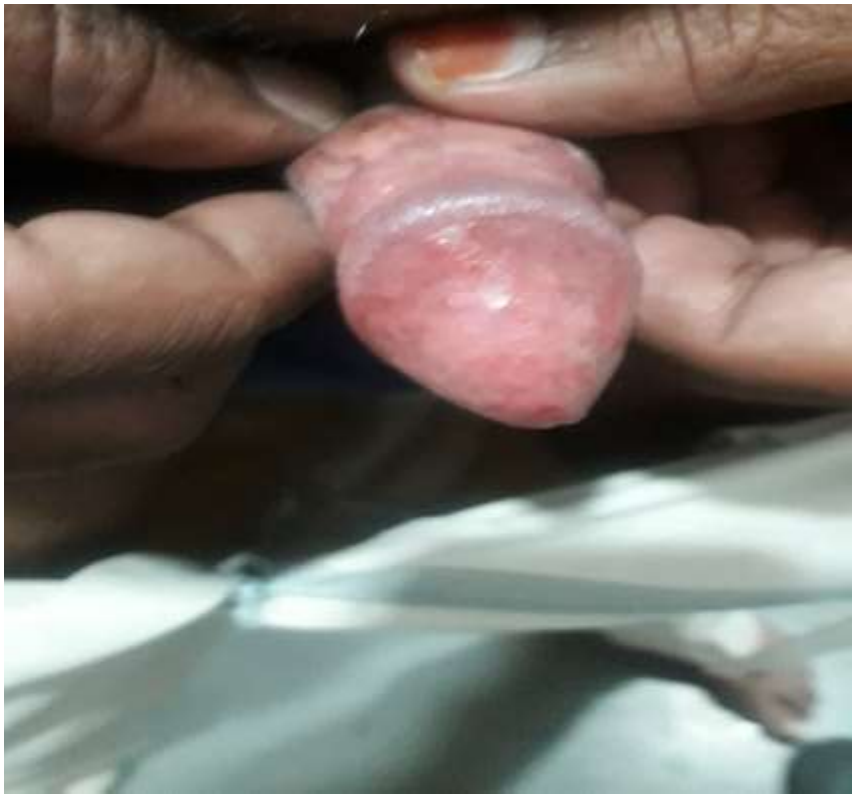
- Fungal
  - Candidiasis . Candida Albicans and non-candida Albicans
  - Anaerobic Organisms – Fuso-spirochaetes, Diphtheroids
  - Treponema Pallidum – (rare) FOLLMANN'S Balanitis
  - Viral – HSV
  - Protozoal – Amoebic balanoposthitis

Irritant balanoposthitis

- Accumulation or uncleaned Smegma
- Application of soaps and improper washing
- Irritation from urine and feces in infants and bedridden patients
- Chemicals like Podophyllin
- Pain balms and other irritant topical applications
- Vaginal spermicides
- Lubricants
- Condoms

Irritant balanitis and irritant dermatitis

cases of Irritant balanoposthitis



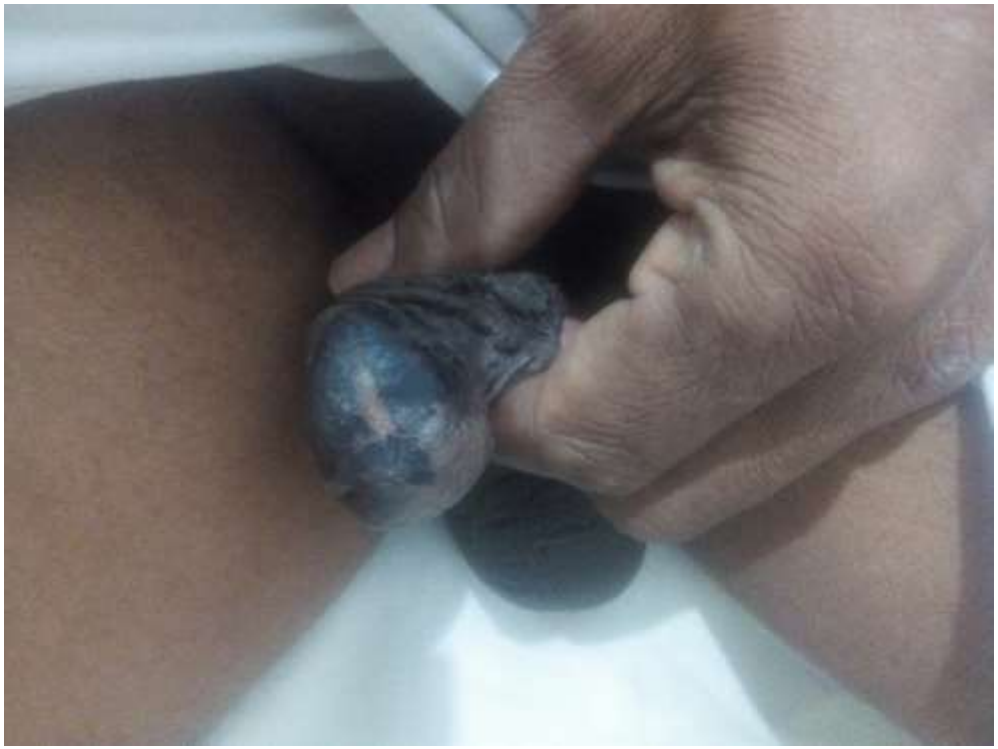
Secondary to Trauma

- Post coital or post masturbation injury –Abrasions looks like Balanoposthitis
- Zip injury
- RTA
- Friction injury –Abrasions and excoriations
- Teeth bites
- Pricking injury
- Self inflicted

Fixed Drug eruption

- Either isolated lesions
- As a part of involvement of multiple sites
- Common drugs –Sulpha drug, Cotrimoxazole, Quinolines, NSAIDs, Metronidazole
- Can occur with any drug
- Whenever there is re-exposure to that particular drug the same site will be involved with additional sites.

FDE



FDE

FDE with secondary infection

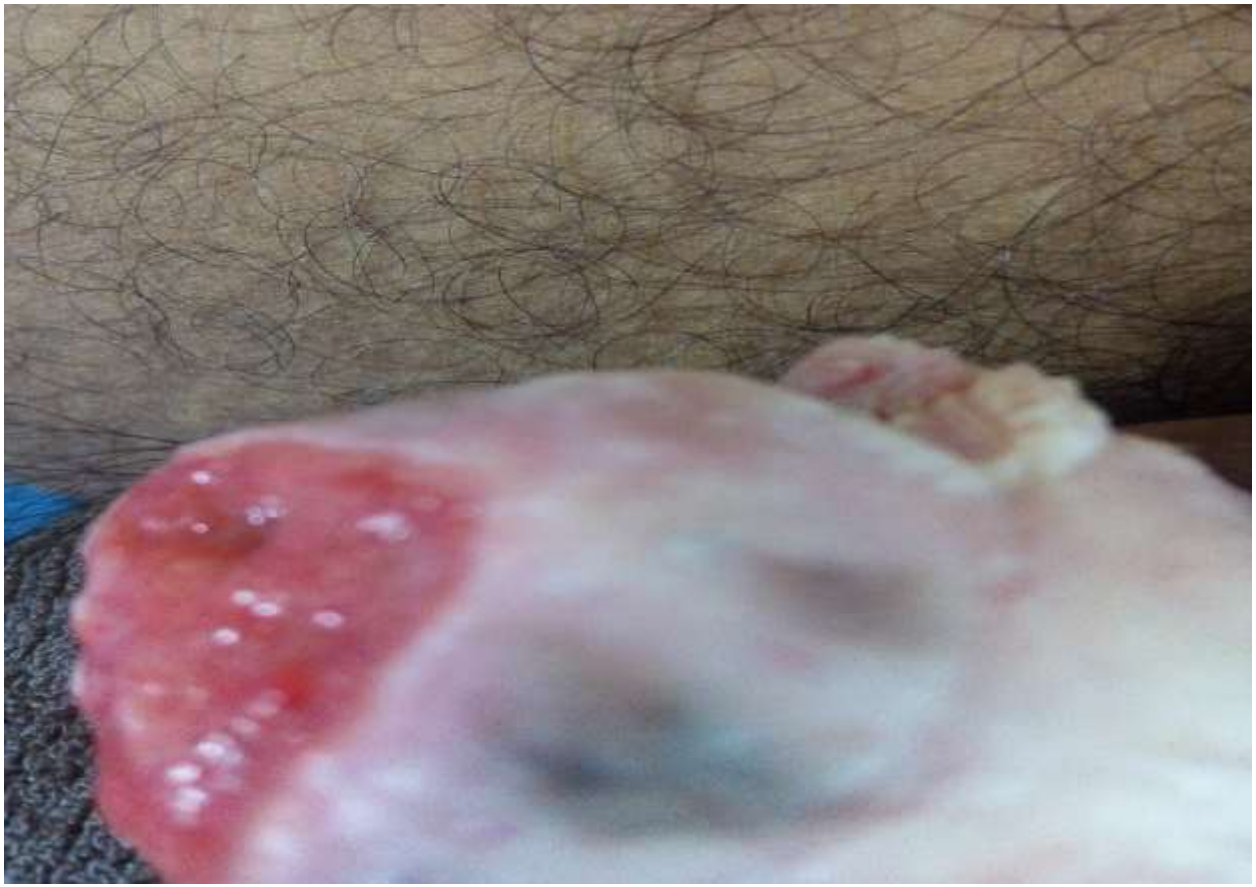
Premalignant Conditions

- Erythroplasia of Queyret
- Bowen' disease of penis
- Extra-mammary Paget's Disease
- Leukoplakia

Erythroplasia of Queyret

Malignancy

- SCC
- BCC
- Melanoma

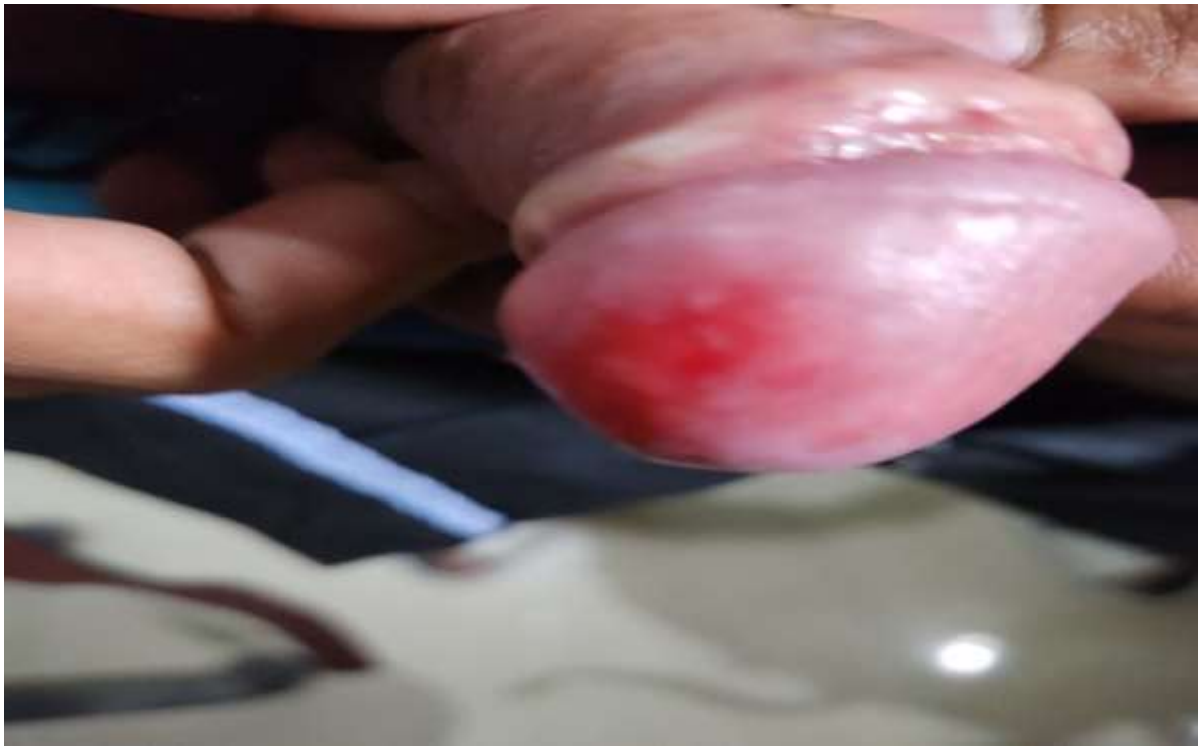


Cutaneous manifestation

- Phemphigus Vulgaris
- Dermatitis Herpetiformis
- Erythema Multiforme
- S J Syndrome
- TEN
- Behcet's Disease
- Aphthae
- Herpes zoster
- Varicella
- Secondary syphilitic lesions

Erosions in Secondary syphilis

Follman's Balanitis in Syphilis

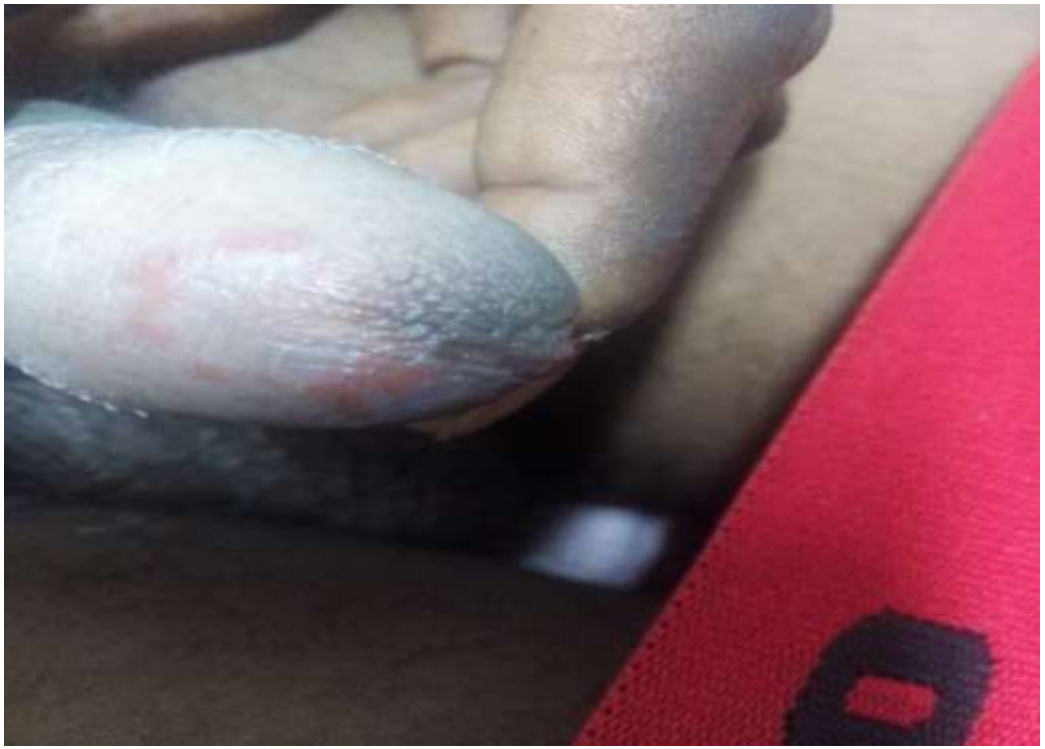


Miscellaneous

- Plasma Cell Ballanitis of Zoon
- Circinate BALANITIS
- Balanitis Xerotica Obliterans (BXO) due to LSA
- Pseudo-epitheliomatous Micaceous and Keratotic Balanitis of Civatte

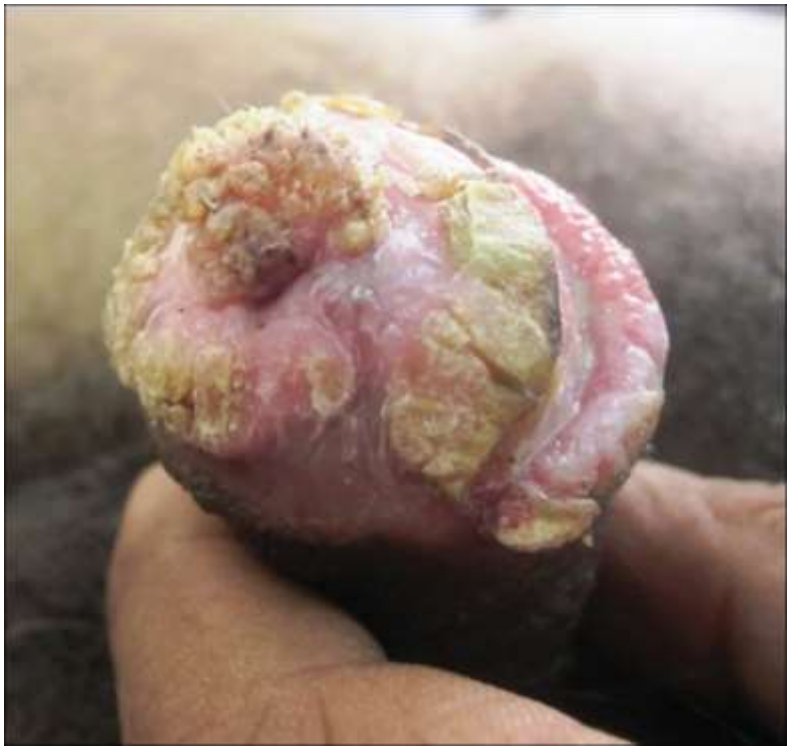
Plasma cell balanitis of Zoon

Circinate balanitis



Balanitis xerotica Obliterans (BXO)

Pseudo-epitheliomatous Micaceous and Keratotic Balanitis



Clinical Manifestations

- As the name implies there will be signs of inflammation like redness, edema and swelling, pain or irritation, insect crawling sensation.
- Phimosis secondary to inflammation and fissures over the margin of the prepuce
- The lesions may vary according to the etiology either localized or total,
- There may be burning sensation, sub-preputial discharge, Phagedenic changes

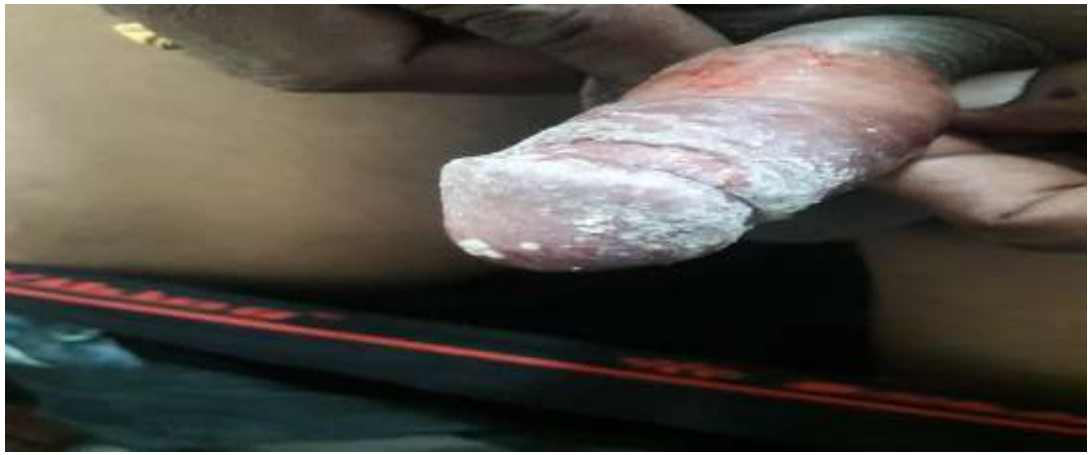
Balanoposthitis, inflammatory phimosis and SPD

Predisposing factors

- Poor personal hygiene
- Long prepuce
- Tight prepuce or Phimosis
- Disease like Diabetes Mallitus, Reiter's disease, Crohn's disease, Ulcerative colitis, HIV infection
- Any immuno-suppressive therapy like Steroids, Cytotoxic drugs, cyclosporin and Radiotherapy
- Endocrinopathies
- Secondary to genital warts and genital ulcers

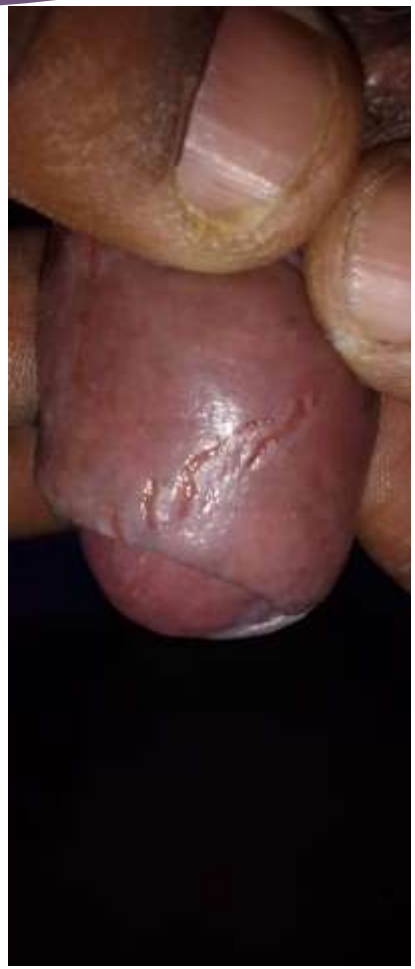
Diabetes mallitus

- The commonest predisposing factor is DM.
- Susceptibility to Candida Albicans increase in the presence of Hyperglycemia
- In many instances the presence of DM is diagnosed by either in the presence of Candidal balanoposthitis in men or Vulvovaginitis in women

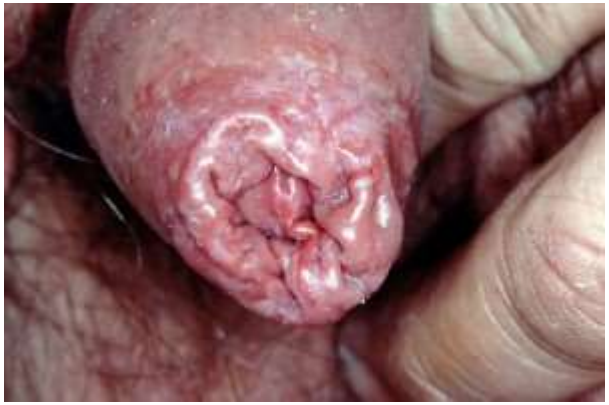


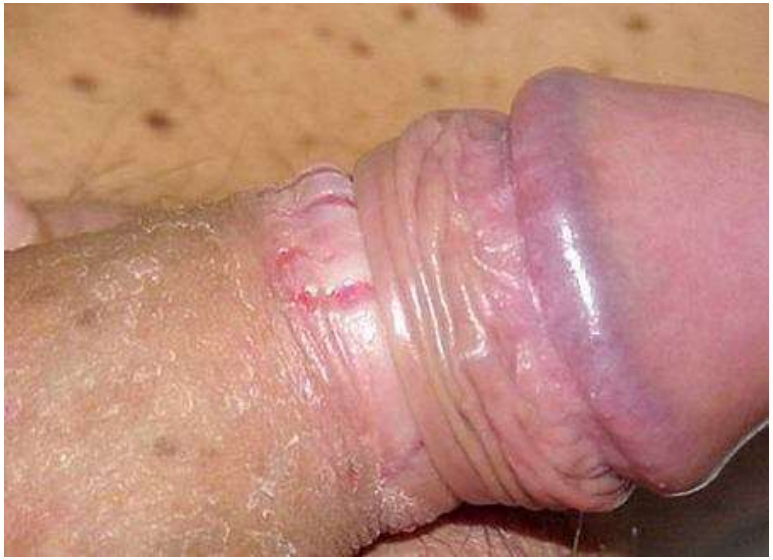
Candidal balanoposthitis

- Commonest type of balanoposthitis
- Reddishness of glans penis with minute numerous papulo-pustules with or without curdy whitish or greyish deposits or discharge.
- The terminal portion of prepuce becomes soddened with multiple fissures with or without edema often leads to phimosis.
- Super added fuso-spirochaete sub-preputial discharge is not uncommon
- Respond to the antifungal treatment with control of predisposing factors.



Monilial balanoposthitis





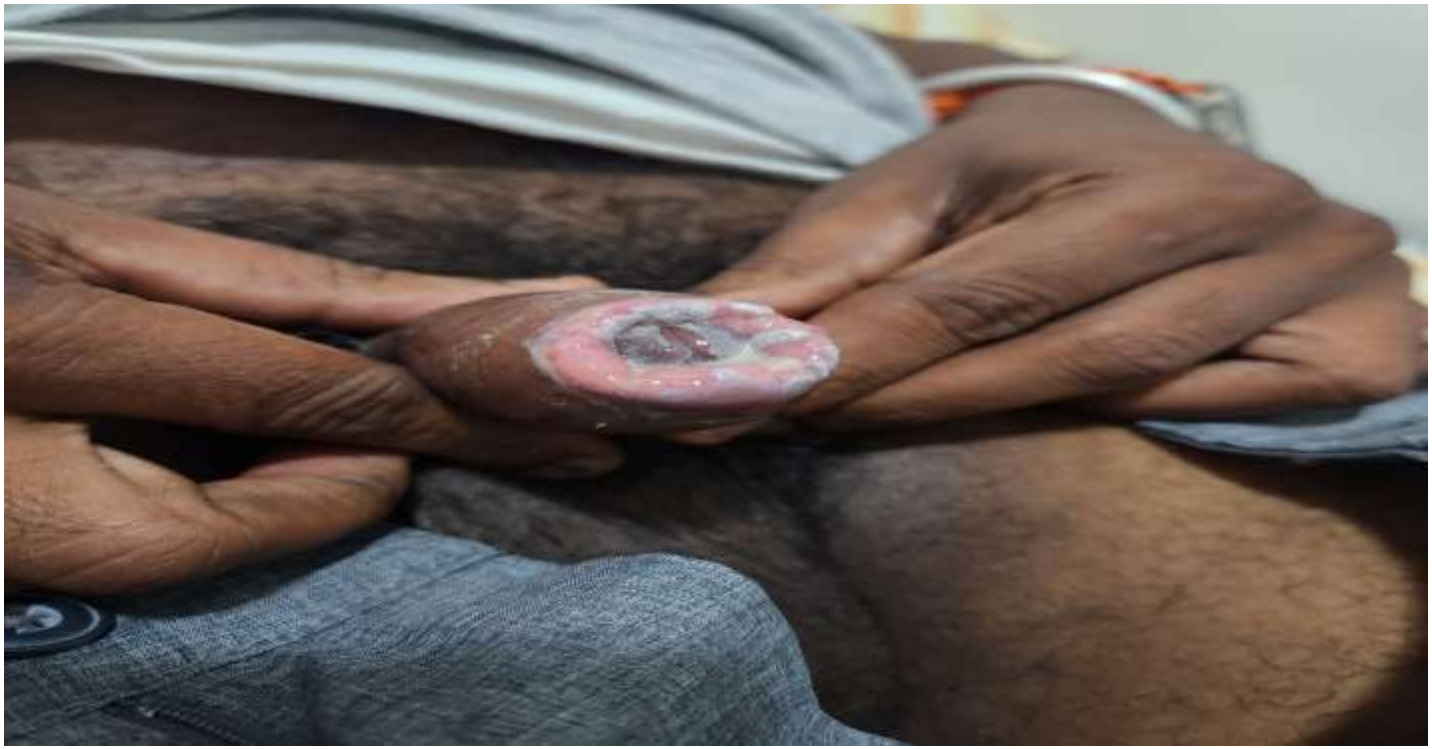
Other predisposing factors for candidiasis

- Prolonged oral broad spectrum antibiotics and other anti microbials
- Oral contraceptives
- Pregnancy
- Topical and systemic steroids and Immuno-suppressive drugs
- Endocrinopathies
- Infection in partners

Management

- Total sexual abstinence during treatment
- Topical and systemic Antifungal antibiotics for three weeks at least
- Control of predisposing factors
- Partner management if necessary

Severe Balanoposthitis with secondary infection



Anaerobic Balanoposthitis

- It causes erosive balanoposthitis
- Associated with phimosis
- Underlying primary lesions could be ulcers or growth or candidal balanoposthitis
- Organisms like B.Vincenti or B.Balanitidis or B. Refringens can be demonstrated under DF microscope.
- Respond to Penicillin and Metronidazole tablets.

Sup-preputial discharge

Monilial intertrigo in a child

Diagnosis

- Clinical examination is enough in most cases
- Demonstration of yeast cells and pseudo-hyphae in KOH preparation and Gram's stain.
- Blood sugar levels
- Rule out other STIs
- Investigations for Reiter's disease
- Biopsy to confirm BXO, Erythroplasia of Queyret, Plasma cell balanitis, Micaceous balanitis, Bowen's and extra-mammary Paget's
- To rule out or confirm CA

Complications Balanoposthitis

- Recurrence
- Chronic
- Re-infection from the partner
- Phimosis
- Paraphimosis
- Preputial adhesions
- CA
- Pigmentary changes –Hyper or depigmentation

Treatment

- Depending upon the diagnosis, treatment has to be planned.
- Topical and systemic antifungal antibiotics for monilial Balanoposthitis . Partner treatment if necessary. Sexual abstinence till treatment is complete.
- Control of predisposing factors
- Withdrawal offending drug and systemic steroids will clear FDE.
- Circumcision for phimosis and Zoon's balanitis
- 5 Flurouracil cream for Micaceous balanitis

Prevention and Life style modifications

- Improve personal hygiene and genital hygiene
- Control of hyperglycemia
- Immune regain with ART in HIV disease
- Avoid predisposing factors like steroids and other immunosuppressive drugs.
- Circumcision wherever it is necessary

Vulvo-vaginitis

Vulvo-vaginitis

- Vulvovaginitis is more common among Children rather than in adults in spite of menstrual habits and sexual practices.
- The stratified epithelial lining of vulva, vagina and ecto-cervix and the acidic pH (4-4.5) in adult women offer protection against bacterial infections.
- In female child the vagina is lined by single layer of cuboidal epithelium and the pH is alkaline due to the lack of Doderlein's bacilli.

Vulvovaginitis in children

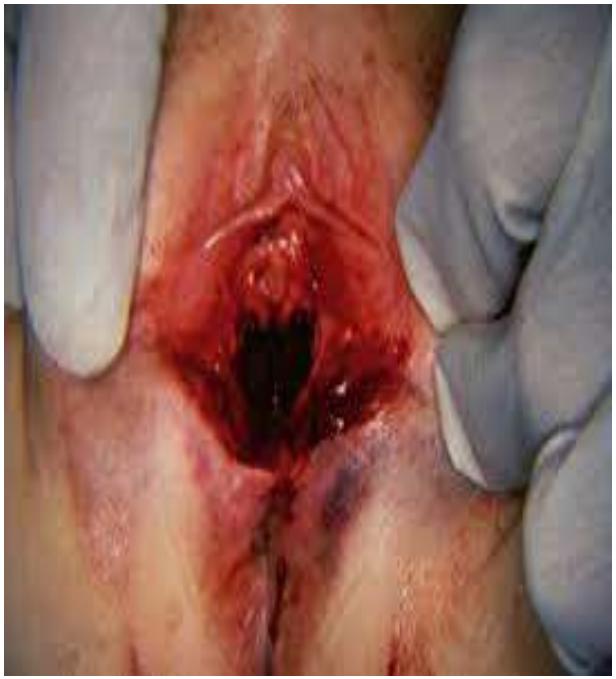
- Usage of phamphers and Huggies
- Poor hygiene – not wearing inner wears and sitting on floors
- Foreign bodies in the vagina-pebbles, beads, stones, grains, peas and nuts, even small onions
- Worm infestation – Enterbius vermicularis
- Candida vulvovaginitis
- Sex abuse

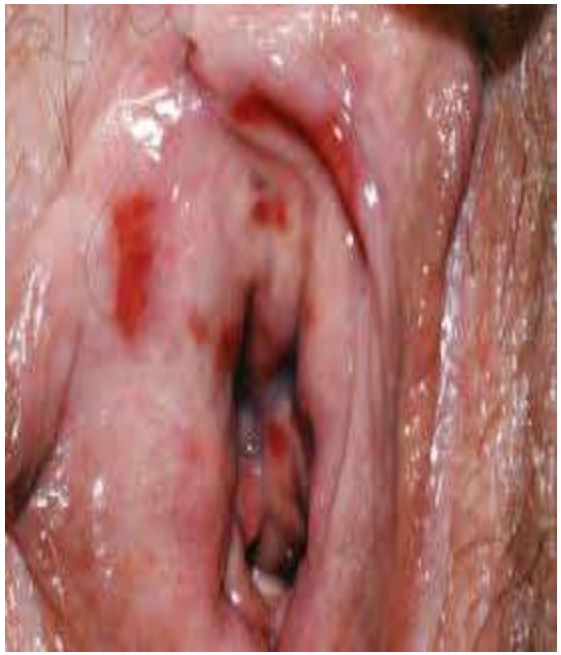
Monilial intertrigo in female child

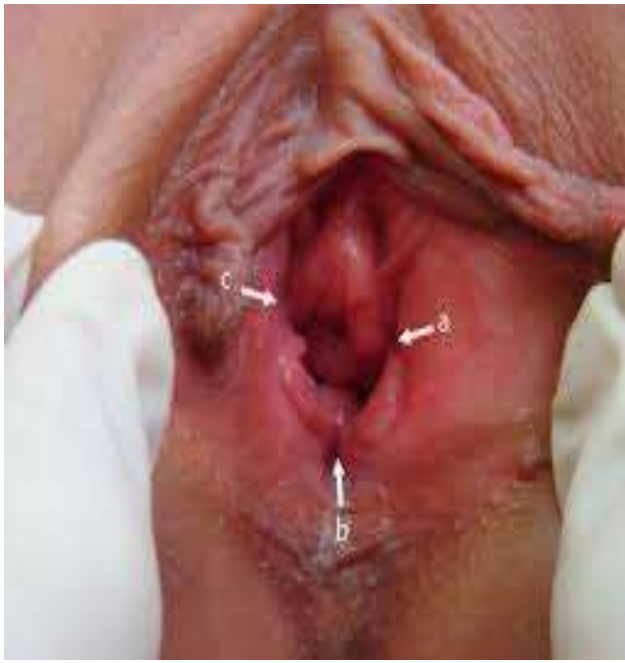
Vulvo-vaginitis in adults

- As in balanoposthitis of males, the etiology of vulvo vaginitis in women could be due to infection, irritants, injury, skin conditions, premalignant and malignant conditions.
- Here also diabetes is the commonest cause for vulvovaginitis in women.
- The presence of recurrent vulvovaginitis in a women could be a presenting feature of DM.

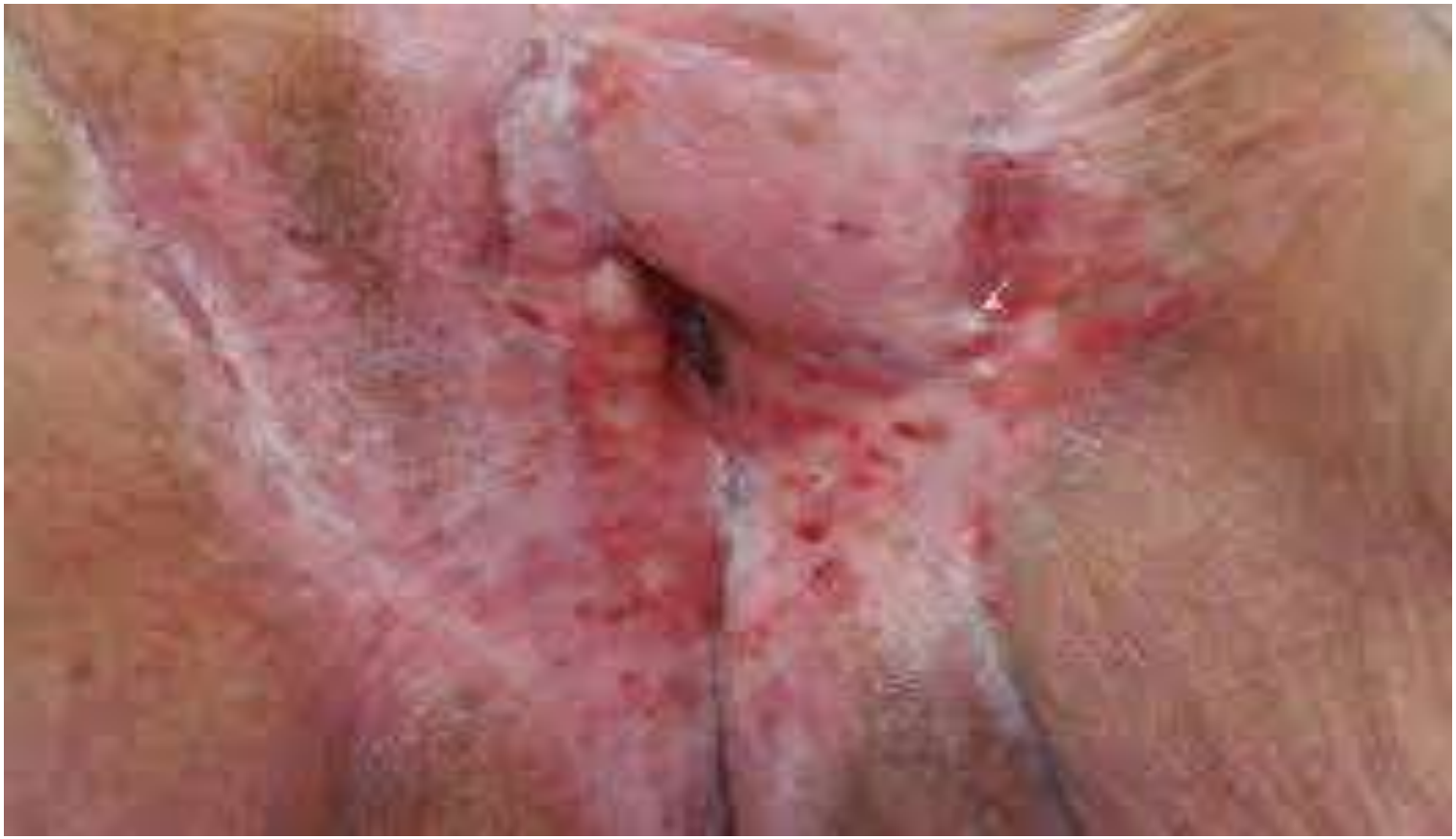
Traumatic vulval ulcers







LS WITH EROSIVE ULCERS

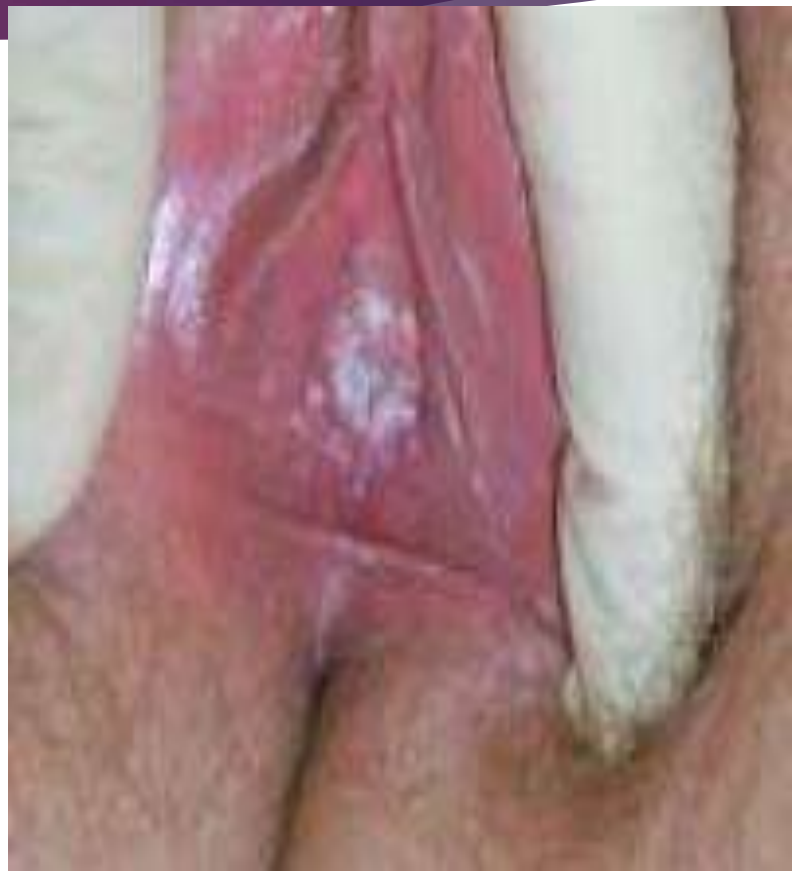


Kraurosis vulvae (LSA)

Clinical manifestation of a candida vulvovaginitis

- Many women remain asymptomatic often
- Symptoms includes pruritus and vaginal discharge
- Other symptoms are soreness of vagina, vulvar burning, dyspareunia and vulval dysuria.
- O/E, Erythema of external genitals and vagina, edema of the vulva associated with curdy white discharge, fissures and erosions.
- The discharge is described as cottage cheese in appearance. Rashes may extend up to perineum and groin. Perianal area also affected often.

Monilial vulvovaginitis



Predisposing factors

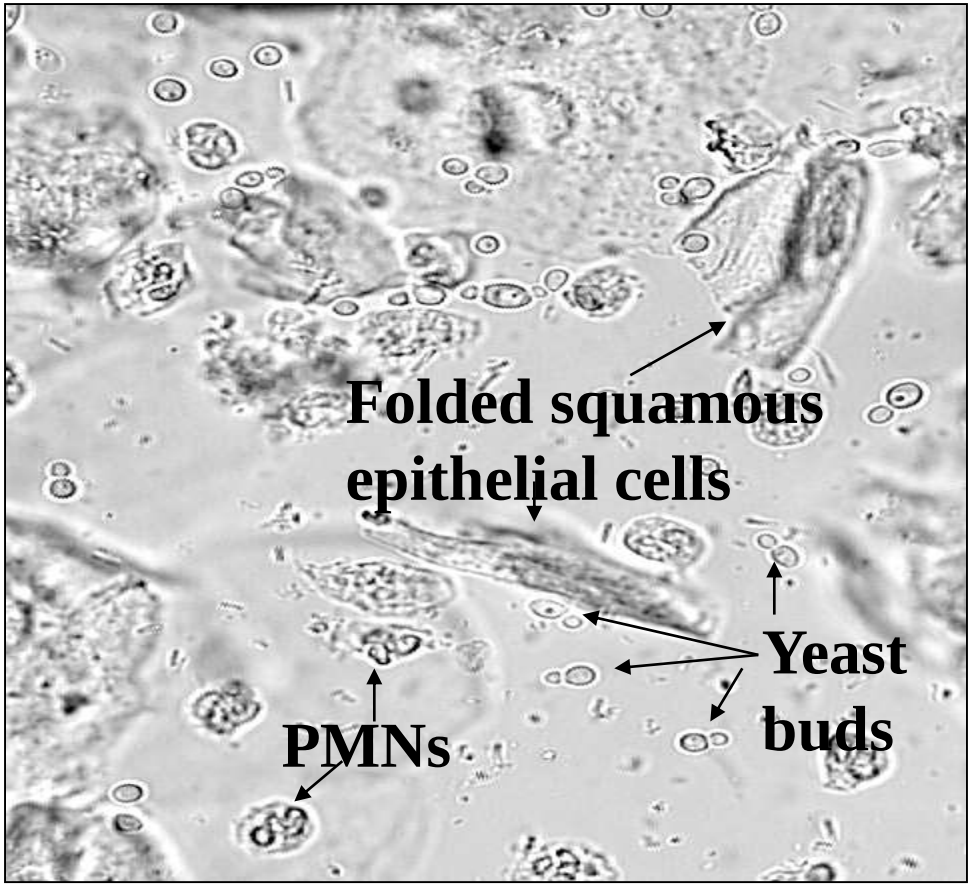
- As that of balanoposthitis, Diabetes Mallitus, immunosuppressive states and immunosuppressive drugs and endocrinopathies certain other risk factors also there in women.
- Drugs like OCP, broad spectrum oral antibiotics for a prolonged period and pregnancy are also predisposing candida Vulvovaginitis.

Diagnosis

- Speculum examination is a must.
- Routinely 3 slides to be taken from the vaginal fluid in all women subjected for examination.
- 2 wet smears (one on normal saline and another with 10% KOH solution) and one dry smear for Gram's stain.
- Yeast cells can be identified in saline preparation itself and in KOH and Gram's stain we can confirm the pseudo-hyphae and the budding yeast cells.

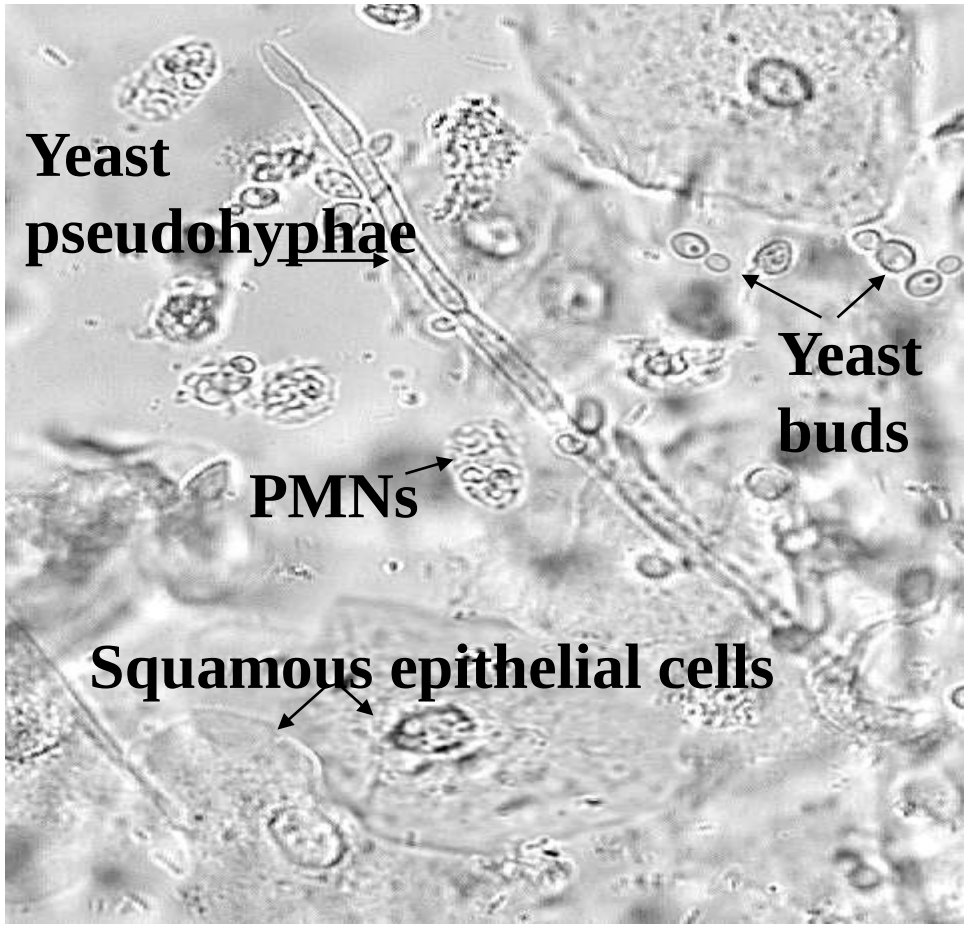
PMNs and Yeast Buds

Saline: 40X objective



PMNs and Yeast Pseudo-hyphae

Saline: 40X objective

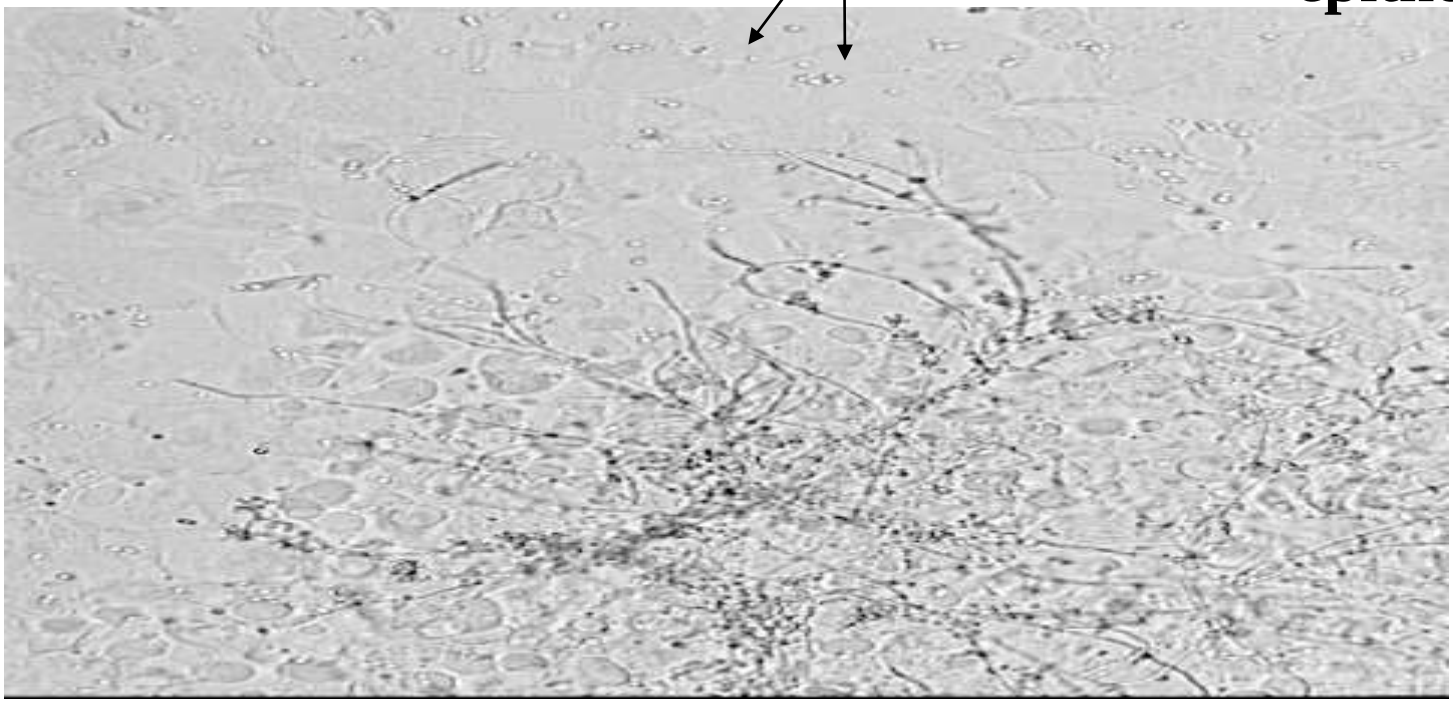


Yeast Pseudo-hyphae

10% KOH: 10X objective

Masses of yeast pseudohyphae

Lysed squamous epithelial cell



Treatment of vulvovaginal candidiasis (VVC)

- Predisposing factors to be addressed.
- Rule out other STI/HIV
- Examination of the partner. Treat if necessary.
- Treatment includes tablet fluconazole 150 mg single dose along with clotrimazole 100mg vaginal pessary for 6 days or vaginal cream intravaginally for 1 to 2 weeks.
- In recurrent infections the fluconazole has to be taken weekly once for 3-4 weeks, sometimes up to six months.
- Sexual abstinence till completion of therapy is a must.

Summary

- Balanoposthitis in men and vulvovaginitis are quite common in the day to day practice.
- Candida etiology is the commonest one.
- Predisposing factors have to be addressed properly to get a good success rate.
- Without knowing the various causes for balanoposthitis and vulvovaginitis, it will be very difficult to suspect or arrive at the diagnosis and subsequently it poses difficulty in the management.
- Female children are more vulnerable for vulvovaginitis.

THANK YOU