VAGINAL DISCHARGE + PRURITIS

By:

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Vaginal Discharge

- Vaginal discharge may be blood stained white cream, yellow, or greenish discharge and wrongly called leukorrhea.

- Leukorrhea: Excessive amount of normal discharge, never cause pruritus or bad odor. The color is white.

PHYSIOLOGY OF THE VAGINA

- The vagina is lined by non-keratinized stratified squamous epithelial influenced by estrogen and progesterone
- In children the pH of the vagina is 6-8 predominant flora is gram positive cocci and bacilli
- At puberty, the vagina estrogenized and glycogen content increase.

Lactobacilli (Duoderline Bacilli)

↓

Convert glycogen to lactic acid

↓

pH of the vagina is 3.5-4.5

Vaginal Ecosystem

- Dynamic equilibrium between microflora and metabollic by products of the microflora, host estrogen and vaginal pH
- The predominant organism is aerobic

Factors affecting the vaginal Ecosystem

1. Antibiotics
2. Hormones or lack of hormones
3. Contraceptive preparations
4. Douches
5. Vaginal Medication
6. Sexual trauma
7. Stress
8. Diabetes Mellitus
9. Decrease host immunity – HIV + STEROIDS

Vaginal Desquamated Tissue

1. Reproductive age – superfacial cells (est)
2. Luteal phase- Intermediate cells (prog)
3. Postmenopausal women- parabasal cells (absence of hormone)

Differential Diagnosis

1. Pediatrics + Peripubertal

   - Physiological leukorrhea – high estrogen
   - Eczema
   - Psoriasis
   - Pinworm- rectum itchy
   - Foreign body

- **Investigation:**
  - Swab for culture
  - PR Examination
  - EUA
  - X-RAY pelvic
  - Exclude sexual abuse

- **Management:**
  - Hygiene
  - Antibiotics
  - Steroids

Post Menopausal

- Exclude malignancy

3. Reproductive Age:

1. Physiological :

- Increased in pregnancy and mid cycle.
- Consists of cervical mucous endometrial and oviduct fluid, exudates from Bartholin's and Skene's glands exudate from vaginal epithelium.

2. Infection:

a. Trichomonas vaginalis
b. Candida vaginitis
c. Bacterial vaginosis(non specific vaginitis)
d. Sexual transmitted disease
e. Neisseria gonorrhea, chlamydia trachomatis, acquired immune deficiency syndrome, syphilis

3. Urinary and faeculent discharge – vvv

4. Foreign body: IUCD, neglected pessay, vaginal diaphragm

5. Pregnancy: PRM

6. Post cervical cauterization

DIAGNOSIS

1. History:
   - Age
   - Type of discharge
   - Amount
   - Onset (relation to antibiotics medication relation to menstruation)
   - Use of toilet preparation
   - Colour of discharge
   - Smell
   - Pruritus

ASSOCIATED SYMPTOMS

2. General Examination:(Anemia, Cachaxia)

- Inspection of vulva
- Speculum examination
- Amount, consistency, characteristic, odor
- Bimanual examination

Investigation

1. 3 Specimens
   a. Wet mount smear (ad saline)
   b. Swab for culture and sensitivity
   c. Gram stain
2. Biopsy from suspicious area
3. Serological test
4. Test for gonorrhea
5. Cervical Smear
6. X-ray in children

Treatment: According to the Cause

1. Foreign body – remove
2. Leukorrhoea
   a. Reassurance
   b. Hygience
   c. Minimize pelvic congestion by exercise

Vaginal Infection

- Trichomonas vaginitis:
  - STD: 70% of males contract the disease after single exposure

Symptoms:

- 25% : asymptomatic
- Vaginal discharge , profuse , purulent, malodorous, frequency of urine, dysparunea, vulvar pruritis

Signs:

- Thin
- Frothy
- Pale
- Green or gray discharge
- pH 5-6.5
- The organism ferment carbohydrates – Produce gas with rancid odor
- Erythcum, edema of the vulva and vagina , petcchiea or strawberry patches on the vaginal mucosa and the cervix

Investigation

- Identify the organism in wet mount smear
- The organism is pear-shaped and motile with a flagellum
- Cervical smear
- Culture
- Immuno-fluorescent staining

Management

- Oral Metronidazole (flagyl)
  - Single dose 2 gm
  - 500 mg P.O twice for 1 week :
  - Cure Rate: 95%

Causes of Treatment Failure:

1. Compliance
2. Partner as a reservoir

Treatment:

- Vaginal Route

Note: Treatment during pregnancy + Lactation

Candida Vaginitis: Moniliasis

- Causative organisms: Candida albicans
  - Is not STD

  - CAUSES:

1. Hormonal factor (O.C.P)
2. Depress immunity, diabetes mellitus, debilitating disease
3. Antibiotics – lactobacilli
4. Pregnancy estrogen
5. Premenstrual + Postmenopausal

Symptoms: 20% asymptomatic

- Pruritus
- Vulvar burning
- External dysuria
- Dyspareunia
- Vaginal discharge (white, highly viscous, granular, has no odor)

Signs

- Erythema
- Oedema
- Excoriation
- Pustules
  - Speculum: cottage cheese type of discharge
  - Adherent thrush patches attached to the vaginal wall - pH is < 4.5

Investigation

1. Clinical
2. pH of the vagina norma < 4.5
3. Fungal element either budding yeast form or mycelia under the microscope
4. Whiff test is negative
5. Culture with Nickerson or Sabouraud media (Candida tropicalis)

Management

1. Standard
2. Topically applied azole (nystatin)
   - 80% - 90% relief
3. Oral antifungal (Fluconazole)
4. Adjunctive treatment topical steroid
   - 1% hydrochortisone

RECURRENT DISEASE

- Definition: More than 3 episodes of infection in one year.

- Causes:

1. Poor compliance
2. Exclude diabetes mellitus
3. Candida tropicalis –Trichomonas glabrata

Treatment

1. Clotrimazol single supp. 500 mg Postmenstrual for 6 months
2. Oral antifungal: Daily until symptoms disapppear
3. Culture discharge for resistant type

BACTERIAL VAGINOSIS

- STD:
- Causative organism: Past Haemophilus or Corynebacterium vaginale

- Now: Gardnella vaginalis

  Gram Negative Bacilli

SIGNS AND SYMPTOMS

Symptoms:

- 30-40% asymptomatic
- Unpleasant vaginal odour (musty or fishy odor)
- Vaginal discharge: thin, grayish, or white

Signs:

- Discharge is not adherent to the vagina, itching, burning is not usual

Diagnosis:

1. pH: 5-6.5
2. Positive odor test- mix discharge with 10% KOH – fishy odor(metabollic by product of anaerobic amins the Whiff test)
3. Absence of irritation of the vagina and vulvar epithelium
4. Wet smear – clue cells

   -Vaginal epithelial cells with clusters of bacteria adherent to their external surface (2% - 5%).

   -Wet smear shows absent and lack of inflammatory cells.

Complication

1. Increase risk of pelvic inflammatory disease
2. Post operative cuff infection after hysterectomy
3. In pregnancy, it increase the risk of premature rupture of membrane
4. Premature labour, chorioamnionitis, endometritis

Management

- Metronidazole 500 mg twice daily for 7 days

Cure is 85% it fall to 50% if the partner is not treated

- Clindamycine 300 mg twice daily
- Vaginal

Recurrent Causes:

- Causes:
  - Partner
  - STD
- Treatment During Pregnancy:?? The organism may predispose to PRM

PRURITUS VULVAE

- Definition:
  - Means sensation of itching. It is a term used to describe a sensation of irritation from which the patient attempts to gain relief by scratching.
  - Vulvar irritation: Pain, burn, tender

CAUSES:

1. Pruritus: associated with vaginal discharge e.g. candida and trichomonas vaginalis. Other discharge which is purulent and mucopurulent discharge cause pain.

2. Generalized pruritis: Jaundice, ureamia, drug induced

3. Skin disease specific to vulva: Psoriasis, seborrhoed dermatitis, scabies, Paget's disease, squamous cell carcinoma

4. Disease of the anus and rectum: Faecal incontinence, tread worms

5. Urinary condition: Incontinence: glycosuria

6. Allergy and drug sensitivity : soaps, deodorant, antiseptic contains phenol, nylon underwear

7. Deficiency state, Vitamin A, B, B12 , hypochromic macrocytic anaemia

8. Psychological factor

9. Chronic vulvar dystrophies : Leukoplakia, lichen sclerosus, Kyourosis vulvae and primary atrophy senile atrohy

1. Investigation

1. History
   - The onset, site, duration
   - Presence or absence of vaginal discharge
   - History of allergic disorders
   - Medical disease,family history of D.

2. Examination

- General – anemia, jaundice
- Local examination
- Urine for sugar and bile
- Blood sugar and liver function test
- Bacteriological examination of vaginal discharge
- Biopsy from any abnormal vulvar lesion

Treatment

1. General measure:
   - Wearing loose fitting
   - Cotton under clothes
   - Keep vulva dry and clean regularly
2. Systemic antihistamine
3. Local fungicides
4. Hydrocortisone and local hydrocorticosteroid
5. Oral antifungal (perianal pruritis)
6. Estrogen cream
7. Surgical measure: Local anesthetics, injection, denervation of the vulva , simple vulvectomy