Lower genital tract infection

Pruritus vulva

Prof.Dr. Yasamin Hamza
Medical College

Normal physiological vaginal discharge

- **Normal vaginal discharge is composed of cervical mucus, vaginal fluid, shedding vaginal and cervical cells, and bacteria.The majority of the liquid in vaginal discharge is mucus produced by glands of the cervix . The rest is made up of transudate from the vaginal walls and secretions from glands as(Bartholin's.) The solid components are exfoliated epithelial cells from the vaginal wall and cervix as well as some of the bacteria that inhabit the vagina. These bacteria that live in the vagina do not typically cause disease**

- **In fact, they can protect the individual from other infectious and invasive bacteria by producing substances such as lactic acid and hydrogen peroxide that inhibit growth of other bacteria. The normal composition of bacteria in the vagina (vaginal flora) can vary, but is most commonly dominated by lactobacilli.**

- **Normal vaginal discharge is clear, white, or off-white becoming yellowish on contact with air due to oxidation. The consistency can range from milky to clumpy, and odor typically mild to non-existent. The majority of the discharge pools in the deepest portion of the vagina the (posterior fornix) and exits the body over the course of a day with the force of gravity. Physiological discharge increases due to increase mucous production from the cervix in the mid-cycle. It also increases in pregnancy& if the women using combined oral contraception**

Causes of Pruritus vulva

Pruritus vulva :is the inflammation and itching of vulval area.

- **Causes :**
- **Protozoal infection, especially trichomonas.**
- **Fungus infection(vulvovaginal candidiasis)**
- **Discharge from the cervix, especially gonorrheal**
- **Discharges caused by vesico-vaginal fistula.**
- **Thread worms in children**
- **Eczema and psorasis around vulva**
- **Lichen sclerosus**
- **Deficiency of ovarian hormones with atrophy of external genitals (atrophic vaginitis and vulval atrophy).**

1- candidiasis:-

- **Candida vulvovaginitis accounts for approximately one-third of vaginitis cases. It is generally not considered a sexually transmitted disease (STD). Candida albicans is responsible for 80 to 92 percent of episodes of vulvovaginal candidiasis .**

  Vulvar pruritus is the dominant feature of vulvovaginal candidiasis. Women may also complain of dysuria , soreness, irritation, and dyspareunia. There is often little or no discharge; that which if present is typically white and clumpy (curd-like)which may smell yeasty, but in some cases there may be itching and redness.

- **Physical examination:- often reveals erythema of the vulva and vaginal mucosa and vulvar odema. The discharge is classically described as thick, adherent, and "cottage cheese-like." However, it may also be thin and loose, indistinguishable from the discharge of other types of vaginitis. Some patients, primarily those with Candida glabrata infection, have little discharge and often only erythema on vaginal examination . The pH of the vaginal fluid is usually normal ,between 3.5-4.5**
- **The microscopy(show speckled Gram- positive spores and long pseudohyphae), and culture of the vaginal fluid can confirm a diagnosis.**

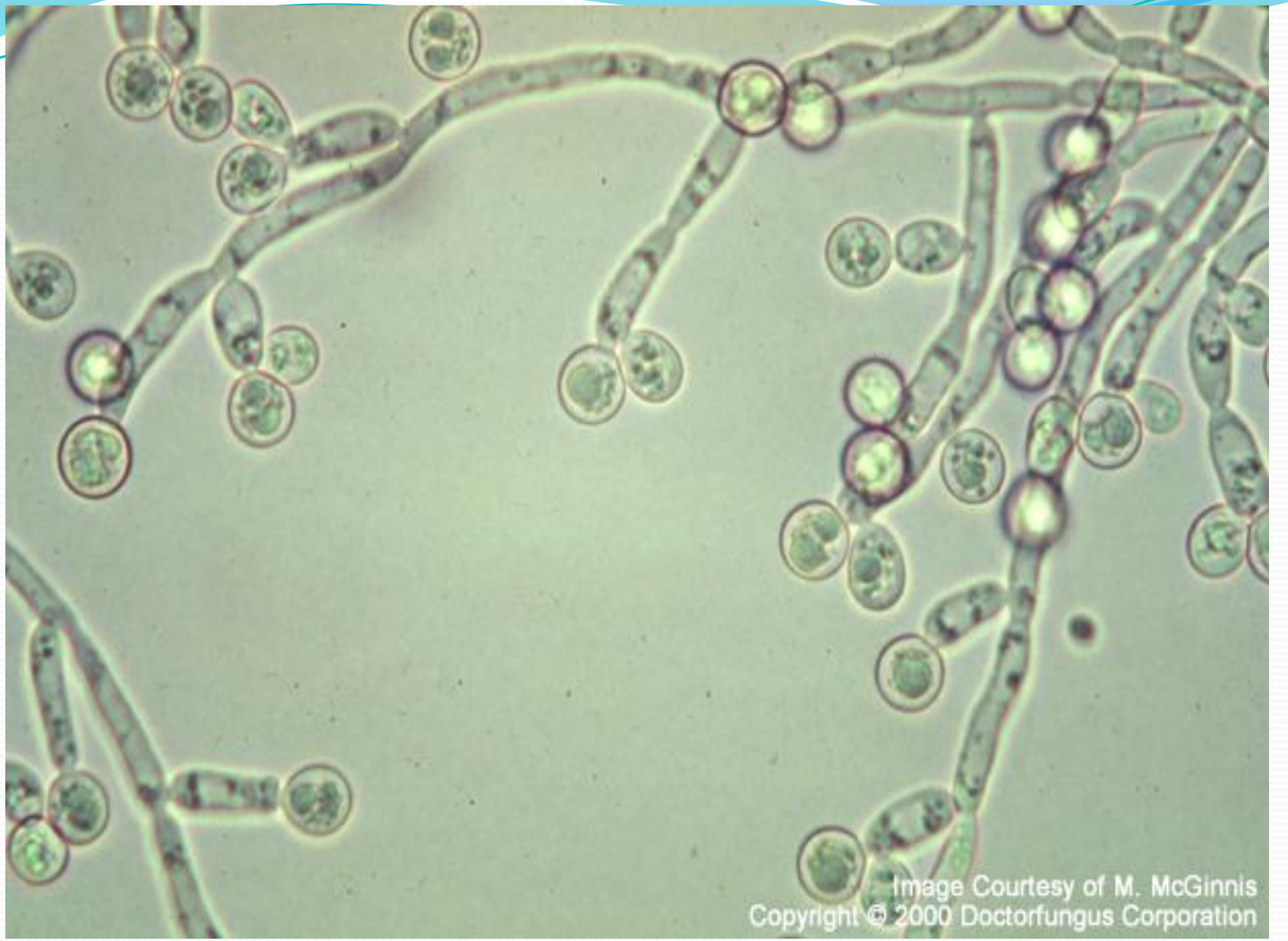


Image Courtesy of M. McGinnis
Copyright © 2000 Doctorfungus Corporation

- **Factors predisposing to vaginal candidiasis:-**
  1-Immunosuppressive conditions like HIV, immunosupressive therapy ,e.g. steroids.and others,
  2-Diabetes mellitus,
- **3-Vaginal douching, bubble bath, shower gel, and tight clothing.**
  4-Increase oestrogen,
- **5-Pregnancy,**
- **6-High- dose combined oral contraceptive pill,**
  7-Underlying dermatosis e.g. eczema. 8- Broad-spectrum antibiotic therapy

- **Treatment:-.Application of a topical imidazole (clotrimazole,or miconazole) vaginally for seven days . Vaginal nystatin is another option, but requires prolonged therapy (7 to 14 days).**
- **Oral therapy (azoles group) are preferred by some women particularly if treatment needed at time of menstruation.**
- **A single dose of 150 mg tablet of fluconazole is usually effective. The azole group are contraindicated in pregnant women as high dose therapy has been associated with embryopathy.**

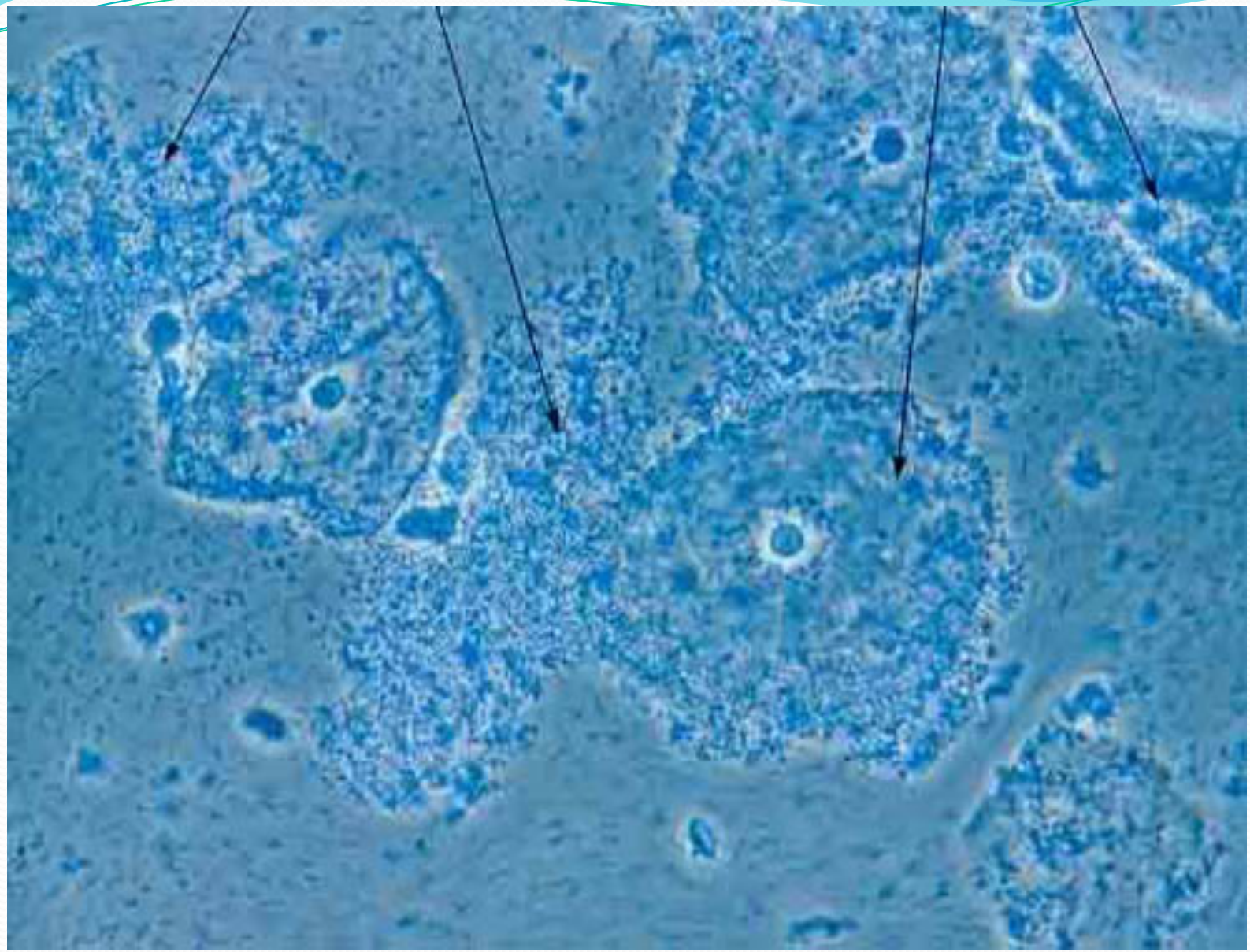
2-Bacterial vaginosis (BV):-

- **BV is not due to a single organism. Instead it represents a complex change in the vaginal flora characterized by a reduction in concentration of the normally dominant hydrogen-peroxide producing lactobacilli and an increase in concentration of other organisms, especially anaerobes.**
- **These include Gardnerella vaginalis; Mycoplasma hominis; Bacteroides (Prevotella)species;Mobiluncus species; Peptostreptococcus species; and Fusobacterium species. The absence of inflammation is the basis of the term "vaginosis" rather than "vaginitis** .

- **Clinical features:- Approximately 50 to 75 percent of women with BV are asymptomatic . Those with symptoms present with an unpleasant, "fishy smelling" discharge that is more noticeable after coitus. The discharge is off-white, thin, and homogeneous.**
  Dysuria and dyspareunia are rare, while pruritus, erythema, and inflammation are typically absent.
- **BV can be associated with cervicitis (endocervical mucopurulent discharge or easily induced bleeding), with or without concomitant chlamydial or gonococcal infection.**

- **Diagnosis:- clinical criteria be standardized to three out of four of the following Asmel's criteria :-**
  1-Vaginal discharge pH greater than 4.5
- **2- Homogeneous discharge adherent to the vaginal wall.**
  3- Release of a fishy smell immediately upon mixture of discharge with 10 percent KOH solution.
  4- Clue cells on a wet mount.

BV can also diagnosed from a Gram- stained vaginal smear. Large numbers of Gram positive and Gram negative cocci are seen , with reduced or absent large Gram positive bacilli(Lactobacilli)



- **Treatment of BV :- Oral metronidazole 400 mg twice a day for 5 days ,or a 2 gram as a single dose. Other type of treatment is oral clindamycin 300 mg twice a day for 5 days.**
- **Alternative treatment is clindamycin 2 % vaginal cream taken once daily for seven days, or 75 % metronidazole gel taken twice a day for five days .**

3-Trichomoniasis (Trichomonal Vaginitis):-

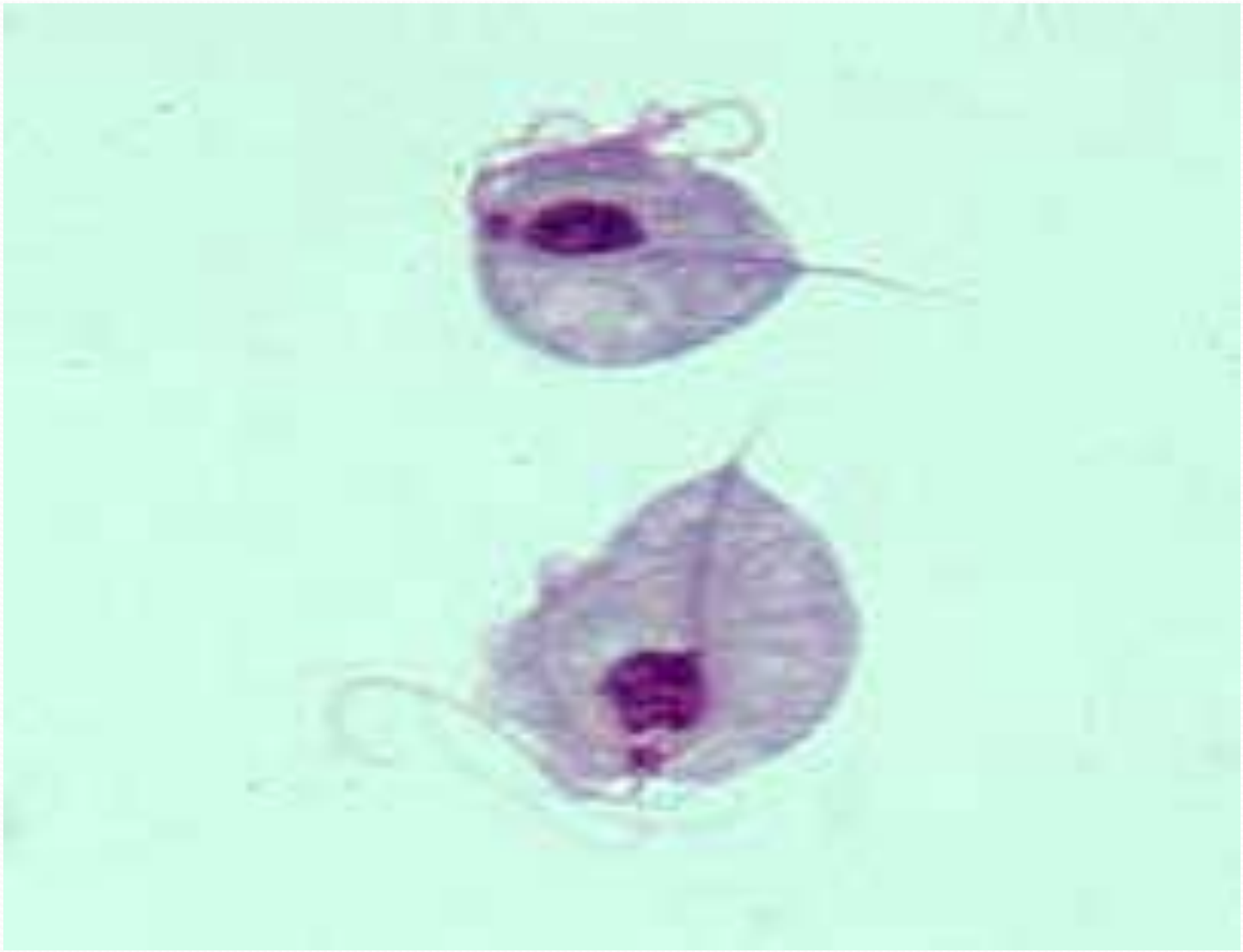
- **Trichomoniasis is a sexually transmitted infection ,and is a common form of vaginitis. It is caused by a single-cell parasite called a trichomonad. Trichomoniasis lives and multiplies in men, but hardly ever causes symptoms in men. Thus, a woman is often reinfected by her (male) partner who isn't aware of any symptoms. Women also may not know they have trichomoniasis for days or months and can spread the STI to their partner. About 30% of women have symptoms of discharge or burning with urination. The parasite affects the vagina, urethra (the canal that carries urine from the bladder to outside the body like fistula), and the bladder.**

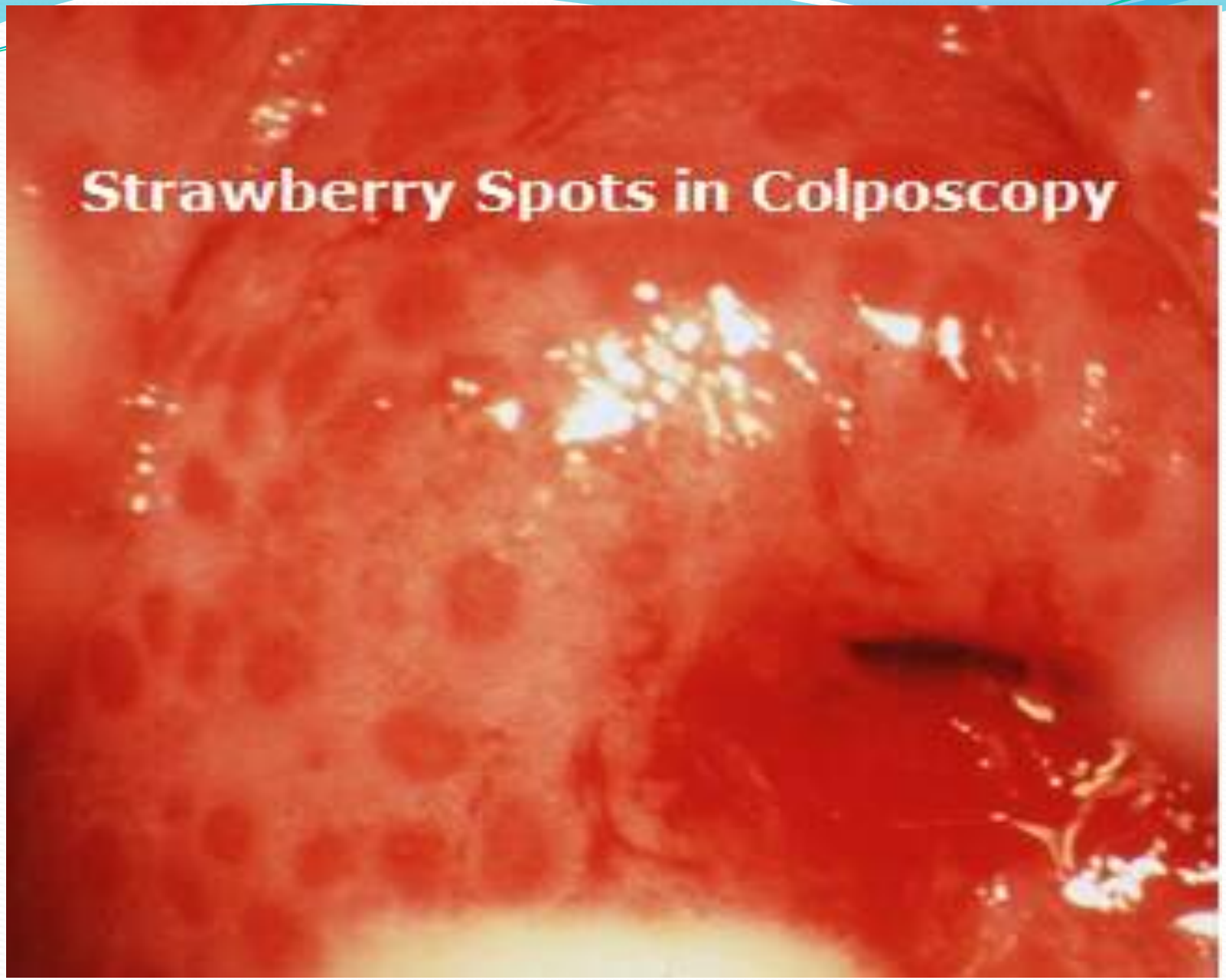
- **Signs and symptoms of trichomoniasis:- Trichomoniasis in women ranges from an asymptomatic carrier state to a severe, acute, inflammatory disease.**
- **The signs of trichomoniasis may include a yellow-gray-green, frothy vaginal discharge with a foul odor, associated with burning, pruritus, dysuria, frequency, and dyspareunia. Postcoital bleeding can occur. The symptoms may be worse during menstruation.**
  Physical examination:- Often reveals erythema of the vulva and vaginal mucosa; the classic green-yellow frothy discharge is observed in 10 to 30 percent of affected women. Punctate hemorrhages may be visible on the vagina and cervix ("strawberry cervix").

Diagnosis:-By using a cotton swab to take a sample of vaginal discharge and do some tests. With trichomoniasis, the pH level of the vagina will be higher than the normal level of (4.5-7.0), and the trichomonad parasite may be .seen under the microscope

Trichomonads may be suspected by the results .of a Pap smear

Trichomoniasis can also be diagnosed by a .culture or special DNA test




Strawberry Spots in Colposcopy

Treatment:-

- **Oral metronidazole 400 mg twice daily for five days ,other regimen is 2 g single dose, or tinidazle 500 mg once daily for 5 days .The antibiotics should be given for both woman and her partner.**

- **And they should avoid sexual intercourse until both are completely cured.**

- **Occasionally persistent trichomoniasis is seen , this is may be due to poor compliance with medication, poor absorption or a resistant organism .Review the history to rule out re-infection from untreated partner.**

- **The usual approach in persistent cases is to use higher doses of metronidazole initially 400 mg three times a day , increasing to 1 g per rectum or intravenously twice a day but with proper monitoring to avoid neurological toxicity fro over dose.**


Thank
You