

VAGINAL INFECTIONS

LEARNING OBJECTIVES

- List the most common causes of vaginal symptoms
- Describe the evaluation of vaginal symptoms
- Understand the primary care management of vaginal symptoms
- Understand the indications for referral for vaginal or pelvic problems

TEACHING STRATEGIES

- Present the didactic material in graphic form if possible
- Use of small group discussions on counseling issues and patient education issues
- Integrate discussion with practical training on performance of a complete pelvic examination

MATERIALS OR NEEDED EQUIPMENT

- White board , flip charts

LEARNING POINTS

- Normal physiology of the vagina
 - Mucosa pink, small amount of clear, mucoid discharge
 - Lactobacilli are normal bacteria in vagina
 - Vaginal pH is normally acid (<4.5)
- Vaginal Irritation or Discharge – Common causes
 - Non-specific irritation of vagina or vulva
 - Allergic irritation from soaps, rubber, tampons or pads
 - Overly vigorous cleaning habits
 - Atrophic vaginitis (postmenopausal or breastfeeding)
 - Disordered bacterial flora (use of antibiotics)
 - Bacterial vaginosis
 - Moniliasis (*Candida* infection)
 - Trichomonas vaginitis (*Trichomonas vaginalis*)
- Vaginal irritation or discharge – Uncommon but potentially serious causes
 - STD (cervicitis secondary to gonorrhea, chlamydia, ureoplasma)
 - Herpes simplex lesions
 - Syphilis lesions
 - Condylomata (Human papilloma virus infection)
 - Lichen sclerosis

- Vulvar cancer
- Cervical cancer
- Evaluation of vaginal irritation – Important elements of history
 - Age of patient
 - Sexual history and menstrual history
 - Possible pregnancy
 - Prior use of antibiotics, vaginal medications, or oral contraceptives
 - Past history of vaginal infections
 - Level of irritation and volume of discharge
 - Association of symptoms with menstrual period (relationship to menses suggests possible moniliasis)
- Evaluation of vaginal irritation – Important elements of physical examination
 - Vital signs and general examination – especially elements of preventive care (breast examination in women > 40, Blood pressure, immunization status, etc.)
 - Visual inspection of vulva
 - look for edema, external inflammation, discharge, skin lesions, ulcerations
 - Speculum examination of vagina
 - Must be done gently and slowly because of inflammation and pain
 - Use narrow blade speculum if possible
 - Evaluate inflammation, volume and type of discharge, edema, possible vaginal ulcerations or mucosal changes
 - Describe vaginal discharge – smell (fishy), color, thickness (thick or thin), volume (small or large amount)
 - Examine cervix – look for inflammation, cysts, masses, ulcerations, purulent discharge
 - Take vaginal swab in small amount of saline for microscopic evaluation
 - If STD suspected, take appropriate cultures for gonorrhea, chlamydia, etc.
 - Bimanual examination
 - Remove speculum, and do bimanual examination to evaluate cervix, uterus, and adenexae
 - Evaluate size, tenderness, possible masses, tenderness on movement of cervix, etc.
 - Note – vaginal infections may co-exist with pelvic infections
- Characteristics of common vaginal infections

Vaginal Infection	Common Symptoms	Common Findings	Other
Bacterial Vaginosis	<ul style="list-style-type: none"> • Vaginal irritation, but no inflammation or edema • Moderate discharge, or may have none at all 	<ul style="list-style-type: none"> • Moderate discharge – yellow, cloudy, or clear • Fishy odor to discharge • “Clue” cells and WBC and absent lactobacilli on microscopic exam 	<ul style="list-style-type: none"> • Associated with use of IUD • May be associated with new sexual partner • May cause premature delivery during pregnancy

Moniliasis (Candida infection)	<ul style="list-style-type: none"> • Vulvar or vaginal itching • Little discharge, but may be thick • Previous history of moniliasis • May have history of diabetes or oral contraceptive use • Very common during pregnancy 	<ul style="list-style-type: none"> • Occasionally vulvar or vaginal redness or edema • Thick, white discharge – or may have none at all • Hyphae or spores on microscopic exam 	Usually not associated with STD
Trichomonas infection	<ul style="list-style-type: none"> • Heavy vaginal discharge • May have some vaginal irritation or burning 	<ul style="list-style-type: none"> • High volume, thin discharge • Occasional inflammation of cervix • Presence of mobile Trichomonas on microscopic 	<ul style="list-style-type: none"> • Usually transmitted sexually (STD) • Often associated with other STD (30%)

- Management of vaginal infections and irritation

Vaginal Infection	Management
Non-Specific irritation	<ul style="list-style-type: none"> • Avoid strong soaps and vigorous rubbing or drying of vulva • Use mild soaps in washing of clothing • Avoid perfumes or bath salts • Use mild hydrocortisone cream to control symptoms for short period of time (hydrocortisone 1% cream – use twice daily for no longer than 5-6 days) • In postmenopausal or lactating women – use estrogen cream 2 –3 times weekly
Bacterial Vaginosis	<ul style="list-style-type: none"> • Confirm diagnosis with vaginal smear (wet prep.) • Metronidazole – 500 mg bid X 5-7 days, or 2 gms as single dose • Clindamycin – 300 mg bid X 7 days (best for use in pregnancy) • Topical Povidone in vagina bid (not for use in pregnancy)
Monilial Vaginitis	<ul style="list-style-type: none"> • Confirm diagnosis with vaginal smear • Topical antifungal in vagina (cream or suppository) bid X 5 – 7days • Fluconazole 150 mg by mouth – single dose • Avoid tight pants or undergarments – use cotton only • Take yoghurt daily by mouth • Avoid broad spectrum antibiotics if possible • Control diabetes when appropriate

Trichomonas Vaginitis	<ul style="list-style-type: none"> • Confirm diagnosis with a vaginal smear (wet prep.) • Metronidazole 500 mg. Bid X 5 days or 2 gm. as single dose • Metronidazole intravaginal gel or Povidone in vagina bid X 7 – 14 days
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PREVENTION ISSUES, HEALTH EDUCATION MESSAGES

- Vaginal infections can be spontaneous or can be part of an STD
- Proper diagnosis is essential to correct selection of treatment – there are several different causes of vaginal discharge and irritation
- Teach young girls to clean carefully and properly after using the toilet, including hand washing before and after use
- A small amount of vaginal discharge can be normal in many women, especially if all diagnostic tests are negative and there are no other symptoms

CRITICAL POINTS FOR REFERRAL TO SPECIALIST

- Severe abdominal pain or fever with vaginal symptoms
- Persistent vulvar lesions or ulcerations
- Persistent discharge not responding to treatment
- Suspicious lesions needing biopsy
- Abnormal swelling not subsiding over short period
- Systemic manifestations of the disease

CRITICAL ELEMENT OF COMPETENCE FOR EVALUATION

- Able to list the most common types of vaginitis and characteristics of each
- Able to correctly perform a vaginal and pelvic examination for evaluation of vaginitis
- Selection of correct treatment for each type of vaginitis
- Knowledge of when to refer to specialist