DIAGNOSIS AND THERAPY OF RECURRENT VULVOVAGINAL SYMPTOMS

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(NO DISCLOSURES)
OBJECTIVES

• REVIEW THE TWO MOST COMMON CAUSES OF **RECURRENT ABNORMAL DISCHARGE** (CANDIDA AND BV)

• REVIEW THE MOST COMMON CAUSES OF **VULVAR ITCHING**

• REVIEW **TREATMENT** FOR THESE COMMON COMPLAINTS
BACTERIAL VAGINOSIS
EPIDEMIOLOGY

• MOST COMMON CAUSE OF VAGINITIS

• PREVALENCE VARIES BY POPULATION
  • NHANES: 3,700 SELF-COLLECTED VAGINAL SWABS (SYMPTOMATIC OR ASYMPTOMATIC)
    • 29% IN THE GENERAL POPULATION
    • 50% AFRICAN AMERICAN WOMEN

• IN PREGNANCY LINKED TO PREMATURE RUPTURE OF MEMBRANES, PRETERM DELIVERY AND LOW BIRTH-WEIGHT

• LINKED TO ACQUISITION OF HIV

• DEVELOPMENT OF PID

• INCREASED RISK OF POST OP INFECTION AFTER GYN SURGERY
BACTERIAL VAGINOSIS
MICROBIOLOGY

- OVERGROWTH OF BACTERIA SPECIES NORMALLY PRESENT IN VAGINA WITH ANAEROBIC BACTERIA
- BV CORRELATES WITH A DECREASE OR LOSS OF LACTOBACILLI
  - ACIDIC VAGINAL pH NORMALLY MAINTAINED BY LACTOBACILLI THROUGH METABOLISM OF GLUCOSE/GLYCOGEN
  - HYDROGEN PEROXIDE IS PRODUCED BY SOME LACTOBACILLI SPECIES
- LOSS OF LACTOBACILLI MAY LEAD TO BV
- BIOFILM
BACTERIAL VAGINOSIS

CLINICAL PRESENTATION

• 50% ASYMPTOMATIC

• SIGNS/SYMPTOMS
  • 50% REPORT MALODOROUS VAGINAL DISCHARGE
  • MOST REPORTED AFTER INTERCOURSE AND AFTER MENSES

BV alone does not cause dysuria, dyspareunia, pruritus, burning or vaginal inflammation. Presence of these symptoms suggest mixed vaginitis
BACTERIAL VAGINOSIS
DIAGNOSIS

AMSEL CRITERIA
(MUST HAVE AT LEAST THREE TO DIAGNOSE)

◆ VAGINAL pH > 5.0
◆ PRESENCE OF >20% PER HPF OF “CLUE CELLS” ON WET MOUNT (NO LACTOBACILLI)
◆ POSITIVE AMINE OR “WHIFF” TEST
◆ HOMOGENEOUS, MILKY-WHITE DISCHARGE ADHERENT TO VAGINAL WALLS

OTHER TOOLS

◆ VAGINAL GRAM STAIN
◆ CULTURE
◆ DNA PROBE
CLUE CELLS

EPITHELIAL CELLS COVERED WITH BACTERIA SO MUCH SO THE CELLS APPEAR TO BE COVERED WITH GROUND GLASS

Photo courtesy of Van der Meijden WI.
BACTERIAL VAGINOSIS TREATMENT

CDC RECOMMENDED REGIMENS (CHOOSE 1):

1. METRONIDAZOLE 500 MG PO TWICE A DAY FOR 7 DAYS (WARN ABOUT NO ALCOHOL)
2. METRONIDAZOLE GEL 0.75%, ONE FULL APPLICATOR (5 GRAMS) INTRAVAGINALLY ONCE A DAY FOR 5 DAYS
3. CLINDAMYCIN CREAM 2%, ONE FULL APPLICATOR FULL (5 GRAMS) INTRA-VAGINALLY AT BEDTIME FOR 7 DAYS

ALTERNATIVE REGIMENS (CHOOSE 1):

1. METRONIDAZOLE 2 G PO IN A SINGLE DOSE (NOT THAT GREAT)
2. CLINDAMYCIN 300 MG PO TWICE A DAY FOR 7 DAYS (WARN ABOUT C-DIFF)
3. CLINDAMYCIN OVULES 100 G INTRA-VAGINALLY ONCE AT BEDTIME FOR 3 DAYS
RECURRENT BACTERIAL VAGINOSIS

• MORE THAN 3 RECURRENCES IN ONE YEAR
• RECURRENCE IS COMMON. 30% RECUR WITHIN 3 MONTHS, 50% WITHIN A YEAR
• OFTEN RECURRENT SYMPTOMS ARE DUE TO ANOTHER PROCESS

DOCUMENT  CLEAR  SUPPRESS
RECURRENT BV MANAGEMENT

- Clear with any of the CDC recommended treatments or alternate treatments
- Treat for longer periods (10-14 days) with the same agent or alternate agent
- Start suppression (same or topical agent twice weekly for 6 months)
- Consider condom use
YEAST MICROBIOLOGY

• CANDIDA SPECIES ARE NORMAL FLORA OF THE SKIN AND VAGINA

• SYMPTOMS (VULVOVAGINITIS) ARE CAUSED BY OVERGROWTH OF C. ALBICANS AND OTHER NON-ALBICANS SPECIES

• YEAST GROWS AS OVAL BUDDING YEAST CELLS OR AS A CHAIN OF CELLS (PSEUDOHYPhAE)

• EXCESSIVE GROWTH = SYMPTOMS

• DISRUPTION OF NORMAL VAGINAL ECOLOGY OR HOST IMMUNITY CAN PREDISPOSE TO VAGINA YEAST INFECTIONS
YEAST
MAKING THE DIAGNOSIS

TAKE A GOOD HISTORY

• SIGNS AND SYMPTOMS
• DIABETES?
• IMMUNOSUPPRESSED?

PHYSICAL EXAM

• VULVAR ERYTHEMA/ EXCORIATIONS?
• SIGNS OF LICHENIFICATION?
• ABNORMAL DISCHARGE
• ANY MASSES OR LESIONS?
Swollen, erythematous and glossy mucosa

Thick white discharge
YEAST - TESTING

• VISUALIZATION OF PSEUDOHYPHAE AND/OR BUDDING YEAST ON SALINE OR KOH WET PREP

• pH IS GENERALLY NORMAL (4.0-4.5)
  • IF pH IS GREATER THAN 4.5 CONSIDER CONCURRENT BV OR TRICHOMONIASIS
# Yeast – Treatment

## Uncomplicated
- Mild to moderate symptoms
- Non-recurrent
- 75% of women have at least one episode
- Responds to short course treatment

## Complicated
- Recurrent = 4 or more episodes per year
- Severe (may have fissure formation and deep excoriations)
- Compromised host (ex: pregnancy)
YEAST TREATMENT
UNCOMPPLICATED

ORAL AGENT: FLUCONAZOLE 150 MG ORAL TABLET IN A SINGLE DOSE

INTRAVAGINAL AGENTS: (WWW.CDC.GOV/STD/TREATMENT/2010/DEFAULT.HTM)

BUTOCONASOLE
CLOTRIMAZOLE
MICONAZOLE
NYSTATIN
TICOCONAZOLE
TERACONAZOLE

***SOME CREAMS AND SUPPOSITORIES ARE OIL-BASED AND MAY WEaken LATEX CONDOMS AND DIAPHRAGMS
YEAST TREATMENT
COMPLICATED (RECURRENT)

- FLUCONAZOLE 100,150 OR 200 MG Q 3 DAYS
  FOR 3 DOSES [DAY 1,4,7]
- 7-14 OF TOPICAL THERAPY
- BORIC ACID 600 MG GELATIN CAPSULE DAILY
  FOR 14 DAYS

- 6 MONTHS
- FLUCONAZOLE 150 MG OR 200 MG WEEKLY
  OR TOPICAL ANTIFUNGAL WEEKLY
- 30-50% OF WOMEN WILL STILL HAVE
  RECURRENCE AFTER MAINTENANCE IS DISCONTINUED
YEAST TREATMENT
COMPLICATED (RECURRENT OR CHRONIC)
NON-ALBICANS

• BE SURE TO DOCUMENT WITH CULTURE
• NEARLY ALL CHRONIC YEAST IS NON-ALBICANS
• ONCE PROVEN NON-ALBICANS

✓ 600 MG BORIC ACID IN GELATIN CAPSULE FOR 2-14 DAYS (STILL A POISON)
✓ FLUCYTOSINE – COMPOUNDED ($$$$
✓ NYSTATIN (POLYENE, NOT AZOLE)
✓ AMPHOTERICIN – COMPOUNDED VAGINAL SUPPOSITORY
✓ CAN TRY COMBINATIONS OF THE ABOVE MEDICATIONS
DIFFERENTIAL DIAGNOSIS OF VULVAR ITCH

Dermatologic
- Lichen simplex chronicus
- Contact vulvitis
- Lichen sclerosus
- Psoriasis
- Lichen Planus

Infectious
- Vulvitis: Candida species
- HPV Infections: HSIL, condyloma, SCC
- Herpes Simplex Virus
- Dermatophyte (tinea)

Neuropathic
- Normal physical exam
Many medications discussed in the next slides are off-label.

There are no FDA approved medications for some vulvar diseases.

There is little evidence based medicine for vulvar disease.

We need more research!
LICHEN SIMPLEX CHRONICUS

• WHAT IS IT? CHRONIC END-STAGE SKIN CONDITION RESULTING FROM PERSISTENT IRRITATION THAT LEADS TO CHRONIC RUBBING AND EXCORIATIONS OF THE VULVA -- ALSO KNOWN AS SQUAMOUS CELL HYPERPLASIA (ECZEMA, ATOPIC DERMATITIS)

• MUST EXCLUDE LICHEN SCLEROSUS, CONTACT DERMATITIS, CANDIDIASIS (MIGHT BE THE INITIATING FACTOR)
LICHEN SIMPLEX CHRONICUS

- Usually occurs in adult women
- History of intense itching and intense pleasure with scratching -- creates “itch-scratch cycle”
- Localized to keratinized skin of the vulva, often intra labial sulci, major, posterior labia minora, perineum
- Can look “thickened” (lichenification) with signs of excoriation and erosion, palpable thickened skin
- Can diagnose with biopsy – or can attempt treatment (usually get a good response)
Excoriations

Lichenification
LIChEN SiMPLEX CHRONICUS

TREATMENT: BREAK ITCH-SCRATCH CYCLE!! NO ITCHING!!

• PATIENT EDUCATION

• ELIMINATE IRRITANTS!
  • ELIMINATE DETERGENTS, SOAPS, FABRIC SOFTNERS, PERFUMES, LUBRICANTS

• TREAT WITH STEROIDS
  • TRIAMCINOLONE 0.1% OINTMENT VERSUS CLOBETASOL 0.05% OINTMENT
  • BID 2-4 WEEKS, THEN DAILY 1-2 WEEKS, THEN 2X PER WEEK

• MAY NEED NIGHTLY SEDATIVE (ATARAX/BENADRYL)

• TREAT INCITING/UNDERLYING CONDITION (INFECTIONOUS, ALLERGIC, IRRITANT OR DERMATOLOGIC)

• CORRECT BARRIER FUNCTION
  • USE EMOLLIENTS JUDICIOUSLY
  • FIRST COUPLE OF DAYS – “SOAK AND SEAL”
CONTACT VULVITIS  
(ALLENGIC VULVITIS AND IRRITANT VULVITIS)

INFLAMMATORY SKIN CONDITION RESULTS FROM EXTERNAL AGENT ACTING AS AN ALLERGEN OR IRRITANT

• CAN OCCUR IN WOMEN OF ALL AGES
• PRESENT WITH ITCHING, STINGING PAIN, CUTS AND “RASH”
• OCCURS ON KERATINIZED SKIN, TYPICALLY MAJORA, MINORA, INTERLABIAL SULCUS, PERINEUM AND ANUS
• LOOKS ERYTHEMATOUS, SCALY, EDEMATOUS, EXCORIATED
• DIAGNOSED WITH GOOD HISTORY
CONTACT VULVITIS

• COMMON IRRITANTS VS ALLERGENS
This patient used topical diphenhydramine --- (Benadryl)
CONTACT VULVITIS

TREATMENT: IDENTIFY AND REMOVE THE OFFENDING AGENT

• TREAT WITH STEROIDS
  • TRIAMCINOLONE 0.1% OINTMENT VERSUS CLOBETASOL 0.05% OINTMENT
  • BID 2-4 WEEKS, THEN DAILY 1-2 WEEKS, THEN 2X PER WEEK, THEN OFF

• REDUCE IRRITATION
  • ELIMINATE DETERGENTS, SOAPS, FABRIC SOFTNERS, PERFUMES, LUBRICANTS

• CORRECT BARRIER FUNCTION
  • USE EMOLLIENTS JUDICIOUSLY
  • ELIMINATE EXCESSIVE WASHING
LICHEN SCLEROSUS

A CHRONIC SKIN CONDITION THAT CAN AFFECT THE GENITAL SKIN CAUSING WHITENESS, TISSUE THINNING AND PROGRESSIVE SCARRING

• STRONG EVIDENCE SUPPORTS AUTOIMMUNITY

• PATIENTS COMMONLY HAVE OTHER AUTOIMMUNE DISORDERS (THYROID DISEASE)

• ONSET – PERIMENOPAUSAL, CAN PRESENT AT ANY AGE

• SEVERE ITCH, PAIN, BURNING (*MAY BE ASYMPTOMATIC)
• RESORPTION with loss of normal architecture
• Cellophane-like surface sheen, crinkled, atrophic
• NOT in VAGINA (unless on a prolapse)
• Very rarely in mouth
• Figure of eight or hourglass pattern
• Patterns variable (perianal 30% women)
• Vulvar LS has 4-5% risk SCC
LICHEN SCLEROSUS - TREATMENT

✓ OPTIMIZE EPITHELIAL BARRIER FUNCTION
  • WATER SOAKS IN LUKEWARM WATER
  • USE COOL PACKS TO DEADEN NERVES
  • NO HOT WATER - NO ICE PACKS
  • SEAL IN MOISTURE WITH OINTMENTS– NOT CREAM

✓ MANAGE INFECTION (IF PRESENT)

✓ REDUCING HEAT, SWEAT, IRRITATION

✓ STOP IRRITANTS - STOP EXCESSIVE HYGIENE
LICHEN SCLEROSUS - TREATMENT

✓ TOPICAL STEROID OINTMENT: CLOBETASOL 0.05% OINTMENT TO START: QD OR BID
✓ NEED CLOSE FOLLOW-UP INITIALLY (EVERY 1-3 MONTHS)
✓ ONCE TISSUE IS NORMAL, CAN ADJUST THERAPY
✓ DURATION OF THERAPY: LIFELONG 2 – 7 DAYS A WEEK
LICHEN PLANUS

• T-CELL MEDIATED

• HYPERSENSITIVITY REACTION PATTERN IN SKIN AND MUCOUS MEMBRANES

• MOST LIKELY TRIGGERED BY AN EXOGENOUS ANTIGEN DRUG, CHEMICAL, SUPER ANTIGEN WITH RESULTING IMMUNE REACTION - INJURING THE SKIN AND MUCOUS MEMBRANES
PERFORMING A BIOPSY

Depends upon the type of lesion

- Erosion or ulcer – take the edge, from normal to the defect
- White skin – sample the white area, no need for surrounding normal skin
- Thick skin, or looking for tumor, sample involved skin, no need for surrounding normal skin
SUMMARY

• NOT ALL ITCHING IS YEAST!
• BIOPSY IF YOU HAVE CONCERN – OR REFER TO SOMEONE WHO WILL
• FOLLOW UP WITH THESE PATIENTS AT SHORT INTERVALS UNTIL SYMPTOMS IMPROVE
THANK YOU

• DR. LYNNE MARGESSON
• DR. HOPE HAEFNER
• ISSVD