Management of Recurrent Bacterial Vaginosis

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Management of Recurrent Bacterial Vaginosis

Barbara Cymring, MD
September 16, 2021
Disclosures

• None
Objectives

• Review the importance of appropriate management of recurrent BV (rBV)
• Review the appropriate diagnosis of rBV
• Review the causes and risk factors for BV and rBV
• Review the current literature on treatment for rBV
• Discuss some preventative measures for decreasing risk of BV infection
Will not discuss

- Basics of BV and treatment of single infection
Why it Matters

• VERY common!
  • 30-40% within 3 months after treatment, and up to 80% recurrence within a year

• Patient morbidity

• Increased risk for other infections
  • HIV, HSV, GC, CT, Trichomonas
  • PID
  • HPV infection

• Increased risk of preterm delivery, PROM, PP complications/infections
Diagnosis

• No Standard definition
  • Consensus: 3 or more times in a year
• Use Amsel Criteria, or commercially available qPCR tests (i.e. NuSwab)
Nugent Score

• Gold standard
• Gram stain
• Scoring system
• Not used much in practice
Amsel Criteria

At least 3 must be met:

1) Homogeneous, thin, grayish-white discharge that smoothly coats the vaginal walls
2) Vaginal pH >4.5
3) Positive whiff-amine test
4) Clue cells on saline wet mount (≥20% of the epithelial cells)

Diagnosis, continued

• Diagnosis by the patient has low specificity
• Attempts should be made for in-office exams and documentation of infection
  • Physical exam
  • Patient education
  • Assessment for alternative/co-morbid dx
Causes of Recurrent BV

• Relapse vs incomplete tx vs re-infection
• Shift in vaginal flora and decrease of Lactobacilli
  • Lactobacilli creates acidic environment with hydrogen peroxide, protects from overgrowth of pathogens
• Hypothesis of BV relapse based on failure to re-establish normal flora
• BV: anaerobic spp (Anaerococcus, Atopobium, Bacteroides, Bacterial vaginosis-associated bacteria type 1 (BVAB1), BVAB2, BVAB3, Gardnerella, Leptotrichia, Mobiluncus, Mycoplasma, Mobiluncus, Peptostreptococcus, Peptoniphilus, Prevotella and Sneathia)
• Cause of flora shift is not clear
Re-establishment of Vaginal Flora

• Study by Sobel, Jack et al in 2019
• Bacterial flora composition at 7 days post treatment was predictive of recurrence
  • If presence of any non-lactobacilli, then recurrence was a lot higher
  • If lactobacilli flora re-established, recurrence rates were significantly lower

Biofilm in BV

• BV involves formation of biofilms that adhere to the vaginal epithelium
  • Basis of the clue cells

• G. vaginalis is the main sp in biofilms and is likely the first one to establish scaffold for other spp to attach to

Risk Factors for BV

• Sexual activity
  • Multiple sexual partners
  • WSW
  • Use/sharing of sex toys
  • Lack of condom use

• Douching
• Smoking
• Menstrual cycle
• ?? IUDs*

Treatment of Recurrent BV - Metrogel

- RCT Study in 2006 by J. Sobel, et al
- Biweekly 0.75% vaginal metronidazole gel for 16 weeks + 12 week f/u
- Significant reduction in recurrence of BV during treatment and longer time to relapse compared to placebo
  - rBV 25.5% in tx group vs 59.1% in placebo (during suppressive tx)
  - Probability of remaining cured: 70% vs 39% at 16 wks → 34% and 18% by 28 wks

Treatment of Recurrent BV- Boric Acid

• Study in 2009 by Reichman, et al
  • Uncontrolled, pilot, single center, 77 patient cases
• Added intravaginal 600mg BA suppositories nightly x 21 days after BV treatment and before the biweekly metrogel suppression
• Cure rates at 12 weeks (end of metrogel period) of 88-92%

Treatment of Recurrent BV- Boric Acid

• In 2019, chart review study in Johns Hopkins clinics 2013-2018
• Anecdotal use of BA 300mg or 600mg for 7-14 days or 21 days for induction and/or maintenance, with good patient satisfaction (77%)

Recommended Treatment*

- Metronidazole 500mg PO BID x 7-14 days
  + 600mg BA suppositories nightly x 21-30 days
- Follow up at end of BA tx. If in remission,
  0.75% metrogel qHS twice a week x 4-6 months

* In non-pregnant patients
Patient Education

- Try to abstain from sex during initial tx, esp unprotected
- No alcohol use until 24 hrs after end of PO metronidazole tx
- No receptive oral sex while on BA treatment
  - DEATHLY if consumed orally
- BA can cause skin irritation for male partner during intercourse
- Keep BA away from children and pets
- Strict condom use
Other Treatments In Research

Safety and Efficacy of a Novel Vaginal Anti-infective, TOL-463, in the Treatment of Bacterial Vaginosis and Vulvovaginal Candidiasis: A Randomized, Single-blind, Phase 2, Controlled Trial

Jeanne M Marrazzo, Julia C Dombrowski, Michael R Wierzbicki, Charlotte Perlowski, Angela Pontius, Dwyn Dithmer, and Jane Schwebke

PMCID: PMC6376090
PMID: 30184181
American Journal of Obstetrics and Gynecology
Volume 221, Issue 6, December 2019, Pages 672-673

Results of a phase 3, randomized, double-blind, placebo-controlled study to evaluate the efficacy and safety of astodrimer gel for prevention of recurrent bacterial vaginosis


“VivaGel”
Muco-adhesive gel
Class of dendrimers
Antibacterial properties
Pending FDA approval
Partner Treatment?

• No evidence to suggest benefit of treating male partners or asymptomatic female partners of patients with BV
Very recent RCT showed no benefit of partner tx on recurrence of BV

Per their literature search, only 6 prior similar studies, all found no benefit (studied 2g metronidazole dose x 1 day, x 2 days; PO clindamycin x 7 days; PO tinidazole)
Prevention

• Condom use
• Hormonal contraceptive use*
• Good vulvar care
• Awareness of symptoms

Probiotics

• Unclear/Mixed/Insufficient\(^1\)
• Some promising studies
• NEJM RTC Phase 2b in 2020\(^2\) – vaginal Lactin-V (\textit{L crispatus}) for 11 wks after metrogel tx
  • Statistically significant decrease in BV recurrence at 12 and 24 weeks

Vulvar Skin Care - .BCVULVARCARE

VULVAR CARE

LAUNDRY
- Use mild enzyme-free detergent (Woolite or "Free and Clear" products), especially on clothes that come in contact with the vulva. Use 1/3 to 1/2 the suggested amount.
- Do not use fabric softener or dryer sheets.

CLOTHING
- Look for underwear or exercise clothes with a breathable or wick-away fabric.
- Wear cotton panties, avoid undergarments which cause increased friction, such as thongs.
- Try thigh-high panty hose instead of waist-high panty hose.
- Avoid tight clothing and synthetic fabrics.
- Remove wet garments (ex: bathing suits) as soon as possible.

BATHING and HYGIENE
- Use only unscented/fragrance-free products (soaps, lotions, washes, gels). Consider avoiding the use of soap in the vaginal area completely.
- Recommend mild soaps including Aveeno, Neutrogena, Cetaphil, or Basis or a plain unscented glycerin soap. Do not scrub the vulvar skin with a wash cloth. Wash with the hand and running water and pat dry.
- Avoid bubble baths, bath salts, and hot tubs (can sometimes worsen symptoms).
- Never douche!
- Avoid over the counter treatments for yeast without asking your provider first as anything in the vaginal area can cause burning and irritation. Do not use Vagisil, it is an irritant.
- Stay away from deodorized pads or tampons. Avoid "Always" brand pads and panty liners. Tampons are fine as long as they are comfortable and are replaced often.
- We discourage shaving or waxing as it may cause irritation or localized infections. Consider laser hair removal as a more permanent solution.
• Avoid scented toilet paper. If wiping is uncomfortable or causes burning, pour lukewarm water over the vulva after urinating and pat dry.

COMFORT MEASURES
• To decrease irritation, small amounts of Vaseline, Crisco shortening or organic Coconut oil may be applied to the vulva as often as needed to provide a barrier, and protect and moisturize the skin.
• Cool compresses are often helpful, as well as splashing down with cool water.
• Soaks in lukewarm water with baking soda will soothe vulvar itching and burning. 1 tablespoon per 1 inch of water in a bathtub, or 1 teaspoon per inch of water in a sitz bath. Soak as needed, several times a day for 15-20 minutes.
• Use a water-based lubricant during intercourse. A small amount of Astroglide, Slippery Stuff, or almond oil (found in health food stores) can make intercourse more comfortable. Oils should not be used with condoms.
• For ANAL SKIN CARE, it is important to clean thoroughly after each bowel movement, but NO RUBBING OR SCRUBBING.
  o Try using Cetaphil soap or mineral oil after a bowel movement to help remove feces. ALBOLENE moisturizing cleanser is a makeup remover that can also be helpful with cleaning after a bowel movement.
  o Avoid baby wipes or personal wipes as these products may cause more irritation. Instead, try using dye-free, unscented toilet paper folded several times and moistened with water from a spray/spritz bottle.
  o Use unscented toilet paper
  o Vaseline, Crisco shortening or organic Coconut oil applied to the anal area can be helpful and provides a good protective barrier.

CONTRACEPTIVE OPTIONS
• Contraceptive jellies, creams or sponges should not be used as they may cause itching and irritation.
• If you use condoms, try non-latex condoms. Be sure the condoms you are using are not coated with a spermicide as this can cause irritation and burning.
Referring to Specialist

• Any time
• After trial and failure of suppressive treatment
• Vulvovaginal Health Center at 833 Chestnut

Message from our Co-Directors

"Welcome to the Jefferson Vulvovaginal Health Center. You can rest assured that you have come to the right place. We have always been committed to clinical excellence and practicing state-of-the-art, evidence-based medicine, which would not be possible without carefully listening to our patients.

We understand the pain, frustration and disappointment you’ve experienced along your journey to alleviate undiagnosed, recurring, or chronic vulvovaginal symptoms. Our Center was created to help you. Our vulvovaginal health specialists will accurately diagnose and treat the specific causes of your symptoms. You can be symptom-free."

- Paul Nyirjesy, MD & Ryan Sobel, MD
Tale Home Points

• Recurrent BV is VERY common and significantly affects patient morbidity and puts them at risk for other infections
• BV is caused by a shift in vaginal flora, which is not yet understood
• Microfilm formation (led by *G. vaginalis*) likely contributes to recurrence/ineffective treatment
• Treatment with Boric Acid for 21 days and metronidazole vaginal gel 4-6 months after initial BV treatment decreased recurrence rates
• Condoms, clean sex toy practices and good vulvar care can help
• Role of partner treatment and probiotic use is not yet clear
Thank you!
References


