Challenging Vaginas

Case Studies in Recognizing and Treating Vulvovaginitis

Linda Burdette, PA-C, MPAS

KEYWORDS

• Bacterial vaginosis • Vulvovaginal candidiasis • Trichomoniasis
• Vulvovaginal atrophy • Desquamative inflammatory vaginitis

INTRODUCTION

Seventy percent of episodes of vaginitis in premenopausal women are caused by bacterial vaginosis, vulvovaginal candidiasis, and/or trichomoniasis. As our population ages and fewer women are using systemic hormone therapy, we see increasing numbers of vulvovaginal atrophy, making postmenopausal atrophy the most common cause of vulvovaginal discomfort. This article reviews cases that demonstrate the common causes and treatments of vulvovaginitis, the treatment for persistent cases, and the diagnosis and treatment of the less common causes.

CASE 1

Brenda is a 26-year-old sexually active woman who presents with complaints of an increased discharge with a strong odor, especially after her periods and after intercourse. She has no pain with intercourse, periods are monthly, and she is using oral contraceptives to prevent pregnancy. Pelvic examination shows no vulvar or vaginal irritation but there is an increased whitish/gray, homogeneous discharge that clings to the walls and feels slimy during sampling. She has no pain with the examination. You notice a fishy odor to the discharge and when you add KOH to one of the wet mount slides, the odor is even more noticeable (positive whiff or amine test). A pH test of the vaginal secretions is greater than 4.5 and when you look at a wet mount slide under the microscope, there are copious clue cells and few long rods of lactobacilli (a drop of Sedi-Stain, marketed for urine staining, makes the clue cells as obvious as seen in **Fig. 1**).

You make the diagnosis of bacterial vaginosis (BV) and treat her with metronidazole, either oral or vaginal. Brenda returns in 3 months because her symptoms resolved with initial treatment, but are now back.

The author has no commercial or financial conflicts of interest to disclose.
Premier Women's Health of Yakima, 6101 Summitview Avenue, Suite 210, Yakima, WA 98908, USA
E-mail address: lindaburdette@gmail.com

Physician Assist Clin 3 (2018) 411–421
https://doi.org/10.1016/j.cpha.2018.02.009 **physicianassistant.theclinics.com**

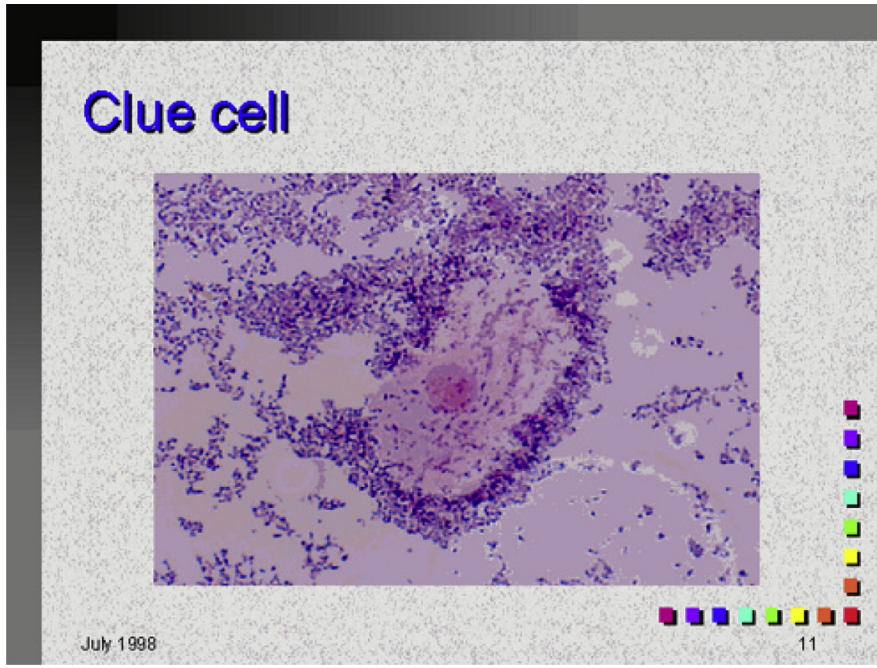

Fig. 1. Clue cell.

Case 1 Discussion

BV is the most prevalent cause of symptomatic vaginal discharge in the United States,[1] and has been associated with complications including preterm delivery of infants, pelvic inflammatory disease, urinary tract infections, and acquisition/transmission of sexually transmitted diseases (STDs), including human immunodeficiency virus (HIV).[2–4] It is marked by a lack of normal hydrogen peroxide–producing lactobacilli and overgrowth of bacteria such as *Gardnerella vaginalis*, *Mycoplasma hominis*, *Atopobium vaginae*, and many other anaerobes. Douching, menstrual flow, and intercourse all provide an environment that is friendlier to this polymicrobial infection. Diagnoses are made clinically with findings of at least 3 of 4 Amsel criteria: homogeneous white/gray discharge that smoothly coats the vaginal walls, vaginal pH >4.5, a positive amine (whiff) test, and more than 20% of the epithelial cells being clue cells. Culture has no role in the diagnosis of BV because *G. vaginalis* is detected more than half of the time in healthy, asymptomatic women.

Treatments for BV approved by the Centers for Disease Control and Prevention (CDC) include the following[5]:

- Metronidazole 500 mg by mouth twice a day × 7 days
- Metronidazole 0.75% gel, 1 full applicator intravaginally daily for 5 days
  - Not to be used during the first 13 weeks of pregnancy
- Clindamycin 2% cream, 1 full applicator vaginally daily for 7 days
- A newly approved medication, as of September 2017, is Secnidazole 2 g granule, an oral, single-dose treatment
- Alternative therapy includes Tinidazole 2 g by mouth daily for 2 days, or
- Tinidazole 1 g by mouth daily for 5 days