



# Is MRSA a common isolate from vulvar abscesses?

**Yes** In this retrospective study involving 162 women, methicillin-resistant *Staphylococcus aureus* (MRSA) was the most common organism isolated from vulvar abscesses, at a prevalence of 64%.

Thurman AS, Satterfield TM, Soper DE. Methicillin-resistant *Staphylococcus aureus* as a common cause of vulvar abscesses. *Obstet Gynecol.* 2008;112:538-544.

## ▶ EXPERT COMMENTARY

**David A. Baker, MD**, Professor of Obstetrics, Gynecology, and Reproductive Medicine, and Director of the Division of Infectious Diseases at Stony Brook University Medical Center in Stony Brook, NY.

This study directs our attention to a common clinical problem in obstetrics and gynecology: the vulvar abscess. Extensive use of antibiotics has fostered the emergence of resistant microorganisms—and MRSA is one of the most common and virulent.

The vulva is especially susceptible to colonization by MRSA owing to its proximity to the rectum and to trauma caused by shaving, waxing, sexual contact, and use of personal hygiene products.

Moreover, obese and disabled women may have difficulty cleaning the vulva adequately; poor hygiene is also associated with MRSA colonization.

## MRSA wasn't the only pathogen identified

Gram-negative organisms, such as *Proteus mirabilis* and *Escherichia coli*, and gram-positive organisms, such as *Enterococcus* and group B *Streptococcus* also were isolated from patients in this study.

Although most of the vulvar abscesses in this study were colonized with MRSA, that fact was not apparent until specimens were cultured. No presenting signs or symptoms distinguished patients who had MRSA from those who did not.

Nor were women with MRSA more likely

to require hospitalization or experience complications from treatment. Rather, hospitalization was more likely in women who had such comorbidities as:

CONTINUED ON PAGE 16

## WHAT THIS EVIDENCE MEANS FOR PRACTICE

A number of practice points can be gleaned from this study:

- When any patient has a vulvar abscess, culture it for aerobic and anaerobic microorganisms, including MRSA
- Because highly resistant organisms are becoming increasingly common in the community as well as the hospital, it is critical that you be familiar with your hospital's antibiotic biogram, which delineates the organisms that are causing infection as well as susceptibility patterns
- Incision and drainage are the mainstay of management of MRSA-colonized vulvar abscess
- When deciding whether to treat a patient as an inpatient, consider medical conditions such as diabetes, HIV infection, obesity, and other conditions that compromise the immune system
- When selecting an antibiotic, choose one that includes coverage of MRSA as well as gram-negative enteric and other gram-positive organisms
- To prevent the spread of MRSA, incorporate proper hand washing and other infection-control measures into routine procedures. Also, decontaminate areas in which patients undergo incision and drainage to prevent transmission of MRSA to staff and other patients.

» DAVID A. BAKER, MD

## FAST TRACK

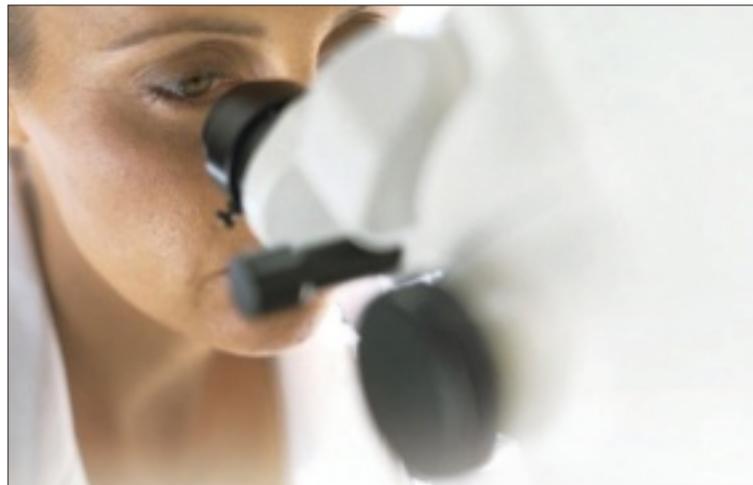
**64% of women who had a vulvar abscess cultured in this study were found to be colonized with MRSA**

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## Examining the EVIDENCE

- diabetes
- hypertension
- an initial serum glucose level above 200 mg/dL
- a larger abscess (mean, 5.2 cm in diameter)
- an elevated white blood cell count ( $\geq 12 \times 10^3/\mu\text{L}$ ).

The overall complication rate was 7.4%, with one case of sepsis and one death.

Management of MRSA-colonized vulvar abscess primarily involved incision and drainage. Most inpatients also received intravenous vancomycin or clindamycin. Among outpatients, trimethoprim-sulfamethoxazole, an antibiotic regimen known to be effective against MRSA, was given in selected cases.

### Limitations of this study

This study was conducted in a large county hospital in San Antonio that served primarily low-income Hispanic patients. Findings may therefore apply only to this population or geographic region.

Several variables were either not presented or inadequately discussed in the published study. For example, 26 of the subjects were pregnant. Should they have been included in the overall analysis? Does pregnancy alter the immune system—thereby becoming a risk factor for MRSA-colonized vulvar abscess? Was antibiotic selection different for pregnant patients than it was for nonpregnant patients?

The article also fails to provide much information on the prevalence of sexually transmitted infections (STI) in this population. Only 41% of the 133 women who had their abscess cultured were screened for STI. If these patients were infected with HIV (AIDS-defined), *Chlamydia trachomatis*, gonorrhea, genital herpes, or other STI pathogen, how would this have changed the data and outcomes?

Last, it is unclear whether the 10 cases of recurrent vulvar abscess identified in this study came from the inpatient or outpatient group.

CONTINUED ON PAGE 19



# Is hysterectomy definitive treatment for high-grade intraepithelial neoplasia?

**No** In this retrospective analysis of 3,030 women who underwent hysterectomy for treatment of cervical intraepithelial neoplasia (CIN) grade 2 or higher, 7.4% of the women who were followed up developed vaginal intraepithelial neoplasia (VAIN) grade 2 or higher, including two cases of invasive vaginal cancer. The median interval between hysterectomy and diagnosis of VAIN 2+ was 35 months (range, 5–103 months). Women who developed VAIN 2+ were significantly older than those who did not.

*Schockaert S, Poppe W, Arbyn M, Verguts T, Verguts J. Incidence of vaginal intraepithelial neoplasia after hysterectomy for cervical intraepithelial neoplasia: a retrospective study. Am J Obstet Gynecol. 2008;199:113.e1–113.e5.*

## ► EXPERT COMMENTARY

**Neal M. Lonky, MD, MPH**, Clinical Professor of Obstetrics and Gynecology at the University of California, Irvine, and Member, Board of Directors, Southern California Permanente Medical Group. Dr. Lonky is an OBG MANAGEMENT Contributing Editor.

This retrospective study reminds us that development of intraepithelial neoplasia of the lower genital tract is the result of the sexually transmitted human papillomavirus (HPV), which, at least theoretically, can exert a malignant-field effect.

The cervix is most susceptible at the transformation zone, but the remainder of the squamous epithelium of the lower genital tract may be at risk in susceptible persons.

### What is the residual risk? Who should we watch?

If the cervix is removed during hysterectomy after CIN 2+ is diagnosed, what is the residual risk to the patient? How should she be managed?

These are key questions, despite the fact that hysterectomy is not as commonly per-

formed to treat high-grade CIN as it is for other indications, such as abnormal bleeding, pain, endometriosis, and fibroids. Hysterectomy for these other conditions without a concomitant history of neoplasia obviates the need for cervical cancer screening via cytology or HPV testing, or both. When CIN is the reason for the hysterectomy, however, or the patient has a history of CIN 2+, there is some residual risk, with the most common sequela being VAIN and, if the VAIN remains undiscovered, vaginal carcinoma. But how do we identify the patient at high risk for VAIN so that we can provide extra resources (screening or colposcopy services)?

### Older women merit closer attention

One strength of this study is the fact that it statistically identified “older women” as a high-risk subset more likely to develop VAIN 2+. In the study, the mean age of women who were likely to develop VAIN 2+ was 61 years, compared with 46.9 years for women likely to remain free of disease.

The median interval between hysterectomy and diagnosis of VAIN 2+ was 35 months (range, 5–103 months). This information allows us to anticipate an optimal window in which to focus extra screening.

CONTINUED ON PAGE 20

**FAST  
TRACK**

**Among women who underwent hysterectomy for treatment of CIN 2+, 7.4% developed VAIN 2+, including two cases of invasive vaginal cancer**

## WHAT THIS EVIDENCE MEANS FOR PRACTICE

We should always carefully examine the entire lower genital tract during colposcopy following referral for abnormal cytology or another abnormal screening test—whether or not the patient has a cervix.

» NEAL M. LONKY, MD, MPH



### Retrospective design is a weakness

The retrospective design of this review of pathology data from multiple practices in multiple records is a limitation. The exclusion of patients who had coexisting VAIN or a history of VAIN is laudable, but bias is possible. The quality of the documentation of examination of the remainder of the lower genital tract in patients who had abnormal cervical screening during colposcopy (which led to the diagnosis of CIN) is subject to extreme variability, compared with a prospective design that would have defined the elements of vaginal and vulvar colposcopic examination.

In other words, I am concerned that these are truly incident—rather than persistent—lesions following hysterectomy.

### How would HPV testing come into play?

This study and the other published studies that address the subject of hysterectomy in the treatment of CIN 2+ did not use HPV testing. If they had, it likely would have provided more information about the true risk of recurrence and helped determine the best screening interval.

The American Society for Colposcopy and Cervical Pathology (ASCCP) guidelines from 2006 do not address this particular scenario, but American College of Obstetricians and Gynecologists (ACOG) guidelines do recommend annual Papanicolaou testing following hysterectomy for CIN until three consecutive tests are negative.<sup>1</sup>

### How reliable are screening methods when the vagina is the target tissue?

Cytologic sampling, HPV test sampling, and colposcopy of the “at-risk” transformation zone or endocervical canal are easier to accomplish than are examination and testing of the entire vaginal vault. The latter are more prone to error and lack evidence-based data to substantiate our practice.

Nevertheless, excellent practice recommendations regarding vaginal colposcopy can be found at the ASCCP Web site at [www.asccp.org/edu/practice/vagina.shtml](http://www.asccp.org/edu/practice/vagina.shtml).

#### Reference

1. Cervical cytology screening. ACOG Practice Bulletin #45. American College of Obstetricians and Gynecologists. *Obstet Gynecol.* 2003;102:417–427.

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