UT SOUTHWESTERN MEDICAL CENTER NEWS

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# 'Superbug' breast infections controllable in nursing mothers, UT Southwestern researchers find

DALLAS – Sept. 3, 2008 – Many nursing mothers who have been hospitalized for breast abscesses are afflicted with the "superbug" methicillin-resistant *Staphylococcus aureus*, or MRSA, but according to new research by UT Southwestern Medical Center physicians, conservative treatment can deal with the problem.

The study focused on hospitalized women with mastitis, and showed that community-associated MRSA was much more likely to be found in those who had both mastitis (an inflammation of the milk glands) and abscesses (pockets of infection).

The study was designed to determine how mastitis with and without abscess formation responded to different antibiotic treatment. Most cases are caused by bacterial infections, generally by *S aureus,* or "staph." There are many strains of staph, one of which is MRSA.

"The take-home message is that not every patient with mastitis necessarily needs an antibiotic against MRSA," said Dr. Irene Stafford, assistant instructor of obstetrics and gynecology and lead author of the study, which appears in the September issue of the journal *Obstetrics and Gynecology.* "She will improve with a less specific antibiotic as long as she also empties her breasts, either through feeding or pumping, and if there's an abscess, gets it treated."

The study also showed that if a nursing mother has mastitis or an abscess caused by MRSA, she does not immediately need antibiotics against MRSA unless the infection does not respond to conventional antibiotic therapy.

Treating all mastitis or breast abscesses immediately with powerful drugs that fight MRSA carries a risk of creating even more antibiotic-resistant strains of staph, Dr. Stafford said.

"The physician can take the time to test the patient to determine what kind of bacteria she has," said Dr. George Wendel, professor of obstetrics and gynecology and senior author of the study. "We found that you're not going to put the patient at a disadvantage if you start her on traditional antibiotics while you wait for culture results."

The study involved 136,459 women who delivered at Parkland Memorial Hospital between 1997 and 2005. Of those, 127 were hospitalized with mastitis, which tends to occur in younger women having their first child.

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The researchers found that about 59 percent of the women with both mastitis and abscesses had MRSA, while only 2 percent of women with mastitis alone had MRSA. Because the study tracked only women who had been hospitalized, there is no way to know whether this proportion is the same in women treated for mastitis on an outpatient basis, Dr. Wendel said.

MRSA is resistant to many antibiotics, but the researchers found that even in cases when the exact cause of the mastitis or abscess had not yet been determined, and the women initially received antibiotics that shouldn't eradicate MRSA, all eventually recovered completely.

About 2 percent to 10 percent of all nursing mothers develop some sort of breast inflammation such as mastitis, the researchers said. Symptoms of mastitis include unexplained fever and deep soreness or swelling in one breast but not the other.

In contrast to mastitis, a breast abscess is a complication characterized by a local collection of pus, which causes pain to a specific area that can feel hot to the touch and appear red on the skin.

"Women should seek medical care if they have any symptoms or concerns for breast infections," Dr. Stafford said.

Other UT Southwestern researchers involved in the study were Drs. Jennifer Hernandez and Vanessa Laibl Rogers, both assistant professors of obstetrics and gynecology; and Drs. Jeanne Sheffield and Scott Roberts, both associate professors of obstetrics and gynecology.

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