Staphylococcus lugdunensis Breast Abscess: Is it Real?

Str—Paviour et al. [1] conducted a retrospective 7-year study of mastitis due to corynebacterium species that included 24 women, one-third of whom were postpartum. When organisms like corynebacteria or coagulase-negative staphylococci (CNS) grow in cultures of breast tissue, the true significance of the finding is often questioned. Does it represent colonization or infection?

We recently treated a nonlactational recurrent breast abscess in a 41-year old woman. Culture of a fine-needle aspiration specimen grew only Staphylococcus lugdunensis. Medical treatment was deferred because this organism was felt to be a contaminant. Four months later the patient consented to surgery. S. lugdunensis was the sole organism isolated from the surgical drainage material. Tissue enclosing a cavity 2 cm in diameter was removed from the right breast. On histopathologic examination, it was found that the cavity was lined by granulation tissue and had marked chronic inflammation with lymphocytes, plasma cells, and rare polymorphonuclear cells. The patient received postoperative intravenous vancomycin therapy for 2 weeks.

Cultures of breast abscess specimens grow Staphylococcus aureus and anaerobes in the majority of cases. CNS are rarely implicated, especially as the sole pathogen [2]. In one series, S. saccharoliticus and S. warneri were each found in 2 different patients [3]. S. lugdunensis, named for the French city Lyon (in Latin, Lugdunum), is a CNS that was described in 1988 [4]. It is characterized by the production of fibrinogen affinity factor, ornithine decarboxylase, and susceptibility to novobiocin, and results of tests for heat-stable nuclease, coagulase, and staphylokinase are negative. It can resemble S. aureus [5]. In a study of 229 S. lugdunensis isolates, the most common associated clinical diagnoses were skin infections (55.4% of cases) and blood and vascular infections (17.4%). In 40% of the cases, S. lugdunensis was the only pathogen, and in only 15.4% was it believed to be a true contaminant. Prior to our patient’s case, there was only 1 report of a breast abscess with this organism in which the organism developed within a cyst [6].

Nonpuerperal breast infections have been divided into 3 classic presentations. The first presentation is due to an acute process with inflammation and no abscess. S. aureus is the predominant bacterium, and antimicrobial therapy will cure the infection. The second presentation is an acute process with both inflammation and suppuration, requiring surgery as well as antibiotics to eradicate the infection. Finally, the third presentation is a chronic process with multiple recurrent infections, suppuration, and sinus tracts around the nipple areolar complex. Aggressive surgical intervention and antibiotics are needed to eradicate the infection. Most breast abscesses occur near the areola. Infection arises in cyst fluid or in a dilated duct. Subareolar or periareolar abscesses start in the lactiferous duct or sinus and either drain through the nipple or rupture through the duct to form an abscess [3]. Factors related to recurrence include initial occurrence at a subareolar site, presence of anaerobic bacteria, presence of underlying duct ectasia, and tobacco smoking.

In conclusion, as is the case with corynebacteria, it is difficult to establish CNS as a sole pathogen for infection even on culture, as it usually is taken to be a contaminant. In our patient, S. lugdunensis was the only pathogen, and such a finding should not be ignored. CNS isolates should be differentiated further, and S. lugdunensis infection must be included among significant CNS infections.

References


Roseolovirus DNA in the Colonic Mucosa of HIV-Seropositive Patients with Diarrhea

Str—We read with great interest the recent article by Amo et al. [1], who reported the presence of human herpesvirus-6 (HHV-6) DNA in large intestine tissue specimens and PBMCs obtained from stem cell transplant recipients. These data are in agreement with the results we obtained from patients with diarrhea related to human immunodeficiency virus (HIV) infection, another cause of immunosuppression.

Thirty-one HIV-1—seropositive patients with diarrhea were examined using left-side colonoscopy. The patients (30 men and 1 woman) belonged to different stages of HIV infection, had CD4+ T cell counts of 3–421 cells/mL (mean, 91 cells/mL), and were aged from 27–57 years (mean, 39 years). A biopsy sample of normal colonic mucosa was obtained from each of the 20 patients with normal-