Enterococcal Endocarditis Carries Good Prognosis

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WASHINGTON — Enterococcal native valve endocarditis has a clinical picture distinct from that of other types of endocarditis and is generally associated with a better prognosis, Jay R. McDonald, M.D., reported in a poster presentation at the annual Interscience Conference on Antimicrobial Agents and Chemotherapy.

Enterococci account for 5%-20% of all episodes of infective endocarditis, but most descriptions of the condition in the literature have been limited to small sample sizes in just one or two centers and have not included useful comparison groups.

Now, for the first time, a merged database of the International Collaboration on Endocarditis has allowed for an examination of prospectively collected data on cases of infective endocarditis reported during 1970-1999 from seven sites in five countries (France, the United Kingdom, Spain, Sweden, and the United States.)

"The aging population and emerging antimicrobial resistance among enterococci make this a pathogen of increasing importance," said Dr. McDonald of Duke University, Durham, N.C.

Of 1,285 patients aged 18 or older with left-sided native valve endocarditis (NVE), there were 107 infected with enterococcus, 314 with *Staphylococcus aureus*, 666 with streptococci, and 198 with other pathogens.

Another 296 patients had prosthetic valve endocarditis (PVE), of whom 45 had enterococcus.

The 512 patients from the database with right-sided NVE were excluded from this analysis because such patients have a distinct natural history and epidemiology (young IV drug users), he explained at the conference, sponsored by the American Society for Microbiology.

In-hospital mortality was significantly lower among patients with left-sided NVE due to enterococcus than among those with disease due to *S. aureus* (11.2% vs. 26.5%), despite the fact that the enterococcus group was older (66.4 vs. 60 years) and had similar rates of both heart failure (45.8% vs. 43.6%) and nosocomial acquisition (15.3% vs. 19.4%).

Moreover, the 11.2% rate of in-hospital mortality for the enterococcus group

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DR. McDONALD

was similar to the 10.2% rate among those with streptococcal NVE, even though the latter were younger (57.8 vs. 66.4 years), had less disease associated with the aortic valve (28.6% vs. 44.4%), and were less likely to have heart failure (35.1% vs. 45.8%).

Compared with patients who had enterococcal prosthetic valve endocarditis, those with enterococcal NVE had significantly more new valve regurgitation (45.6% vs. 12.8%), fewer abscesses (6.3% vs. 20.1%), and similar rates of in-hospital mortality (12.6%/14.8%) and early surgery (31.1%/31.7%), Dr. McDonald reported.

In a multivariate analysis of all patients with left-sided NVE, factors that significantly increased the risk for in-hospital mortality included age in 10-year intervals, systemic embolization, infection with *S. aureus*, intracardiac abscess, and heart failure. In contrast, infection with either viridans streptococci or enterococcus increased the chance of survival.

Interestingly, unlike early studies of enterococcal endocarditis, the disease was rarely seen among young women. Of the total 107 with enterococcal NVE, women accounted for just 27%.

Of those 29 women, all but two were aged 50 and older, whereas 10 of the 78 men were under age 50 (including 3 in their 20s). This difference may be explained by improved antibiotic prophylaxis for gynecologic procedures, which was the major risk factor for enterococcal endocarditis among young women in the early studies, Dr. McDonald told this newspaper.

The International Collaboration on Endocarditis is planning a larger prospective study to better characterize the disorder, he said. ■

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