Clinical Symptoms and Results of Bacteria Culture in Patients with Local Pocket Infection of the Cardiac Implantable Electronic Device

Takashi Saito, Morio Shoda, Bun Yashiro, Osamu Wakisaka, Daigo Yagishita, Koichiro Ejima, Tetsuyuki Manaka, Nobuhisa Hagiwara

The department of cardiology, Tokyo Women’s Medical University, Japan

Aims: Bacteria culture examinations are important to identify the bacteria and its focus of infection in patients with device infection. The aim of this study was to investigate the relationship between results of culture and clinical symptoms in patients with local pocket infection. Methods and Results: Between January 2005 and June 2010, 42 patients (mean age 61 yr; male n=33) were diagnosed of device infection in our hospital. Twenty four (57%) patients had only local inflammatory changes or erosion at generator-pocket site without blood stream infection and a vegetation-like mass adherent to the leads at initial echocardiological assessment. Among them, 17 (71%) patients had a positive pocket tissue culture. Lead cultures after lead extraction procedure were more frequently positive in patients with positive tissue culture than in patients with negative tissue culture (47% (8/17) vs 29% (2/7)). Additionally, there was no difference in results of pocket tissue culture between patients with and without fistula or discharge at the generator-pocket site. Conclusion: Bacteria culture examinations revealed that pocket infection extended to the leads in about half of patients who had only local inflammatory changes or erosion at generator-pocket site without any signs of systemic infection at initial assessment.

Keywords: device infection, culture tests, device complication