creased risk estimates. We believe this is true of our study.

Acknowledgments

Potential conflicts of interest. Sanofi-Aventis made arrangements to acquire the data for the original study [2]. S.S. is a consultant with Bristol-Myers Squibb. P.B. and A.K.: no conflicts.

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3. Keane J, Gershon S, Wise RP, et al. Tuberculosis in carriers of pacemakers or implantable cardioverter-defibrillators. Cardiac devices do not seem to be an elective target during bacteremia caused by gram-negative bacteria (unlike bacteremia caused by gram-positive bacteria), and there are currently no official recommendations for carriers of pacemakers in whom gram-negative bacteremia is diagnosed. It is not clear whether these endogenous devices should be removed in these patients. Uslan et al. [1] suggest that they not be systematically re-
moved in these patients, in contrast with what is usually recommended for Staphylococcus aureus bacteremia, in consideration of both the low rate of pacemaker infections that complicate bacteremia and the low rate of relapse observed in their retrospective study.

We report the case of a 78-year-old man who had a pacemaker for 30 years for an atrioventricular block. The device was changed after 25 years, and showed no sign of dysfunction. Five years after the device was changed, he was referred to our hospital for Hafnia alvei–associated pyelonephritis and was treated with ofloxacin for 3 weeks. One month after treatment was completed, the patient presented with a novel episode of pyelonephritis. Urine cultures were contaminated, but blood cultures grew H. alvei. He was treated for 2 weeks with ofloxacin. He experienced a relapse 2 weeks later and had a negative urine culture result but 6 blood cultures that grew H. alvei with a phenotype that was identical to that of the 2 first isolates. Transthoracic and transesophageal echocardiographies had normal findings. No definitive source for these relapses was identified. The patient’s clinical and biological status returned to normal after receiving a combined treatment of ceftriaxone and ciprofloxacin for 3 weeks. A few days after the end of this treatment, a new episode of H. alvei bacteremia occurred. A positron emission tomography scan was performed that revealed an isolated endocardial uptake that was consistent with a lesion, in addition to the intrinsic hypometabolic status of the myocardium. A second transesophageal echocardiogram was obtained, which revealed a 20-mm by 13-mm vegetation attached to the ventricular electrode, near the tricuspid valve. A new antimicrobial regimen combining ceftriaxone and gentamicin was initiated, and the patient was referred to the cardiac surgery department. The surgeon observed several right-ventricular vegetations on the pacemaker electrode and the tricuspid valve. The device and the vegetations were removed. Samples from both the pacemaker and the vegetations grew the same strain of H. alvei as before. Antibiotic therapy was continued for 6 weeks, and a new pacemaker was installed. Twelve months later, the patient had experienced no relapse.

In light of this observation, we would like to underscore the possibility of gram-negative bacteria–associated endocarditis following bacteremia, even on a native valve [2]. Even if this complication is relatively rare, we think that it is useful to thoroughly seek any evidence of endocarditis or pacemaker infection with the use of transesophageal echocardiography, which can be repeated in the case of relapse or persistence of bacteremia. As illustrated in this case report, repeatedly positive blood culture results should alert clinicians of a possible pacemaker infection; pacemaker removal is an option to consider in the course of relapsing gram-negative bacteremia.

Hafnia alvei Endocarditis following Pyelonephritis in a Permanent Pacemaker Carrier

To the Editor—We read with interest the article by Uslan et al. [1] analyzing the management of gram-negative bacteremia in carriers of pacemakers or implantable defibrillators. Cardiac devices do not seem to be an elective target during bacteremia caused by gram-negative bacteria (unlike bacteremia caused by gram-positive bacteria), and there are currently no official recommendations for carriers of pacemakers in whom gram-negative bacteremia is diagnosed. It is not clear whether these endogenous devices should be removed in these patients. Uslan et al. [1] suggest that they not be systematically re-

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