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The implantable cardiac monitor and pocket infection

To the Editor,

Lauschke et al. [1] reported that a newly developed implantable cardiac monitor (ICM; BioMonitor) effectively detects patients with cardiac arrhythmia. In this prospective nonrandomized study, the BioMonitor provided safety results within the expected range. The implantation was successful in all 152 patients, and two device-related serious adverse events (pocket infections) occurred at 3 months.

Cardiac implantable electronic devices (CIEDs) mainly include pacemakers, implantable cardiac defibrillators (ICDs), and cardiac resynchronization therapy (CRT) devices. ICMs can also be added to this list. Previous trials reported that the incidence of CIED-related infections ranges from 0 to 12.6% [2, 3]. Pocket infections prolong hospital stay and increase medical costs. Moreover, the increased incidence of infectious complications is associated with substantially elevated morbidity and mortality rates [4, 5]. In this study, devices were implanted epifascially in 42% of the patients and subcutaneously in 52%. Although ICM implantation is regarded a simple process, the infection range was 1.3%.

In this well-presented article by Lauschke and colleagues, two device-related serious adverse events (pocket infections) occurred by 3 months in two patients and the devices were explanted. No additional data are provided about these two patients. There are various host-related and procedure-related factors associated with CIED infections, including diabetes mellitus, chronic obstructive pulmonary disease, corticosteroid use, renal insufficiency,

malignancy, heart failure, preprocedural fever, anticoagulant drug use, skin disorders, postoperative hematoma, and lack of antibiotic prophylaxis [6]. In light of this knowledge, it might be beneficial to know the baseline characteristics of these patients so as to avoid ICM infection.

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Conflict of interest F. Mehmet declares that he/she has no competing interests.

References

1. Lauschke J, Busch M, Haverkamp W et al (2017) New implantable cardiac monitor with threelead ECG and active noise detection. *Herz* 42:585–592
2. Cabell CH, Heidenreich PA, Chu VH et al (2004) Increasing rates of cardiac device infections among medicare beneficiaries: 1990–1999. *Am Heart J* 147(4):582–586. <https://doi.org/10.1016/j.ahj.2003.06.005>
3. Chua JD, Wilkoff BL, Lee I et al (2000) Diagnosis and management of infections involving implantable electrophysiologic cardiac devices. *Ann Intern Med* 133(8):604–608. <https://doi.org/10.7326/0003-4819-133-8-200010170-00011>
4. Ra'Ad T, Elena D, Kasra M et al (2016) In-hospital mortality among patients receiving an implantable cardioverter-defibrillator in the United States: 2000 to 2012. *J Am Coll Cardiol* 67(13):862. [https://doi.org/10.1016/S0735-1097\(16\)30863-4](https://doi.org/10.1016/S0735-1097(16)30863-4)
5. Patricia K, Steven P (2001) Implantable cardioverter defibrillator complications: infection, erosion, thrombosis. *Card Electrophysiol Rev* 5(1):110–114
6. Polyzos KA, Konstantelias AA, Falagas ME (2015) Risk factors for cardiac implantable electronic device infection: a systematic review and meta-analysis. *Europace* 17:767–777