


eComment. Retained temporary epicardial pacing wires in cardiac surgery

Authors: Georgios Dimitrakakis¹ and Inetzi A. Dimitrakaki²
¹Department of Cardiothoracic Surgery, University Hospital of Wales, Cardiff, UK
²Department of Cardiology, Metropolitan Hospital of Athens, N. Faliro, Greece
doi:10.1093/icvts/ivs431
© The Author 2012. Published by Oxford University Press on behalf of the European Association for Cardio-Thoracic Surgery. All rights reserved.

We read with great interest the best evidence topic by Shaikhrezai and colleagues regarding retained temporary epicardial pacing wires (TEPWs) in cardiac surgery and we agree with their recommendations [1].

TEPWs are used routinely in the postoperative period following cardiac surgery and its use is associated with low morbidity and mortality [1, 2]. Significant predictors for pacing in the postoperative period include diabetes mellitus, preoperative arrhythmias and need for pacing during the operation (coming off cardiopulmonary bypass, etc). If patients with these risk factors were excluded, only 2.6% patients of coronary artery bypass graft (CABG) surgery will require pacing [2].

The incidence of major complications following TEPWs removal is 0.04% [2]. The risk of complications is higher in redo cardiac surgery and anti-coagulated patients [2]. Patients’ vital signs should be monitored following the removal of TEPWs to allow early and prompt identification of related potential complications [2].

Retained TEPWs rarely cause problems [1, 2]. Chung and Smith have reported on two cases of delayed presentation of anterior mediastinal foreign body reaction secondary to retained TEPWs [3]. The first case was related to a 59-year-old man who had CABG and six years later, presented with an abscess in the lower third of his sternotomy incision, which was treated with debridement and removal of the underlying sternal wires. Even though the wound had healed well, a mid-sternal swelling combined with right subcostal sinus eventually developed [2]. A computed tomography scan showed a retrosternal, ill-defined area of soft tissue extending into the superior mediastium containing the retained TEPWs. The patient was treated successfully with opening of the sinus, removal of the TEPWs and remaining sternal wires with healing of the wounds by secondary intention [3]. The second case was quite similar to the first one and was related to a 64-year-old woman who had CABG and five years later was presented with abscess in the lower third of the sternotomy scar. The same approach with the first case was used successfully after conformation with a CT scan of the retrosternal collection associated with retained TEPWs [2].

Lyons et al., in 1986, have reported on four cases with infection and bacteraemia due to retained TEPWs [3]. The authors illustrated that the failure of removal of the TEPWs should be considered as a real surgical complication and not just a trivial event [4].

In conclusion, because it is suggested that off-pump CABG may be associated with reduced requirement of TEPWs, its routine insertion might be considered carefully [2, 5]. In the case of retained TEPWs, the patient has to be aware of any related potential complication, the incident has to be documented in the patient records and its inclusion in the differential diagnosis of any relevant postoperative complication is of paramount importance [1].

Conflict of interest: none declared

References