LETTER TO THE EDITOR

Answer to the letter of Walid Amara et al.

Réponse à la lettre de Walid Amara et al.

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We thank Dr Amara et al. for their interest in the recommendations put forward by the French Working Group on Cardiac Pacing and Electrophysiology. Dr Amara points out that on-site cardiac surgery is probably not mandatory in the case of implantation of leadless pacemakers, in contrast to what we have proposed in our publication.

Concerning the rate of pericardial effusion reported during leadless implantation (1.5 – 1.6%), it slightly exceeds the rate observed with conventional pacing systems (1.2% in the Mayo Clinic report) [1–3]. We agree with Dr Amara et al. that the rate of perforation remains reasonably low with both techniques. On the other hand, the consequences of cardiac perforation related to the implantation of conventional (6 French) leads appear to be considerably different from those occurring during leadless pacemaker implantation (with a 27 French external sheath).

Most perforations that occur during conventional transvenous lead implantation are associated with mild symptoms and are very often asymptomatic, whereas in the leadless pacemaker studies, more than 50% of patients with perforation develop tamponade. These differences are due to the leadless technology, with the use of very large and stiff sheaths, and to the experience of operators with this new technique. Consequently, pericardial effusion with leadless pacing requires a much more aggressive intervention, often with sternotomy and patch positioning to repair the myocardial perforation created by the larger-diameter delivery system and devices used in these implantations.

Furthermore, the French (Haute Autorité de santé) and UK (Medicines and Healthcare products Regulatory Agency) authorities have both recommended that implantation of leadless pacemakers should be done in centres with on-site cardiac surgery facilities until there are robust data to confirm that the adverse event rate requiring surgery is as low as in conventional pacing [4,5].

Dr Amara et al. compare leadless pacemaker implantation with ablation of atrial fibrillation. We do not believe that these two techniques can be compared, as the catheter size used for atrial fibrillation ablation is only 8 French whereas catheter sizes up to 27 French are used for leadless PM implantation.

For all of these reasons, we recommend that leadless pacemakers should be implanted only at centres with on-site cardiac surgery facilities or with a thoracic surgeon trained to repair a cardiac injury in an emergency situation until more experience has been gained and implanting tools for this procedure have improved.

Disclosure of interest

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References


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