Response to Letter Regarding Article, “Left Atrial Appendage Occlusion Debate Revisited”

There is a “buzz” around the field of left atrial appendage (LAA) occlusion. Although it is an area of emerging evidence,1 that evidence and our understanding of thrombus formation in the LAA in atrial fibrillation is as yet incomplete. We agree with Drs Salzberg and Emmert that a Heart Team approach must be taken in assessing patients for potential LAA occlusion. However, we do caution extrapolating the results of 1 device to another; ie, assuming that there is a device class effect. Currently, the surgical occlusion devices do not have labeling for stroke prevention, but rather have 510k approvals in the United States.

The first published description of LAA occlusion appeared in 1949 in which Dr Madden described removal of the LAA in 2 patients who had multiple embolic complications.2 Despite this first description being put forth by a surgeon, the surgical community has lagged behind its interventional colleagues in the generation of higher-quality evidence to support the role of LAA occlusion for stroke prevention. Although the aggregate of the data suggests proof of concept that LAA occlusion is beneficial, different approaches to occlusion have differing limitations. For example, in our Left Atrial Appendage Occlusion Study (LAAOS I) pilot study, we saw that stapler devices are very effective in preventing leak into the LAA, but they tended to leave behind larger cul-de-sacs.3 The clinical implications of such are unclear.

Surgical devices may have some advantages over catheter-based techniques. In particular, the occlusion of the LAA without leaving an intravascular foreign body is definitely attractive. Furthermore, having used the atriclip during cardiac surgery, we agree that its approach to occlusion overcomes many of the issues of variability at the ost of the LAA. However, the surgical devices do need to be evaluated with similar rigor to that of the Watchman device. This is highlighted by the recent Food and Drug Administration class I recall of the Tiger Paw because of the tearing of atrial tissues. Rapid uptake of these devices before the synthesis of high-quality evidence may result in greater risk exposure to patients if surgical devices underperform in preventing clinical outcomes. Dr Salzberg’s team has contributed significantly to this literature, and we look forward to further data supporting surgical device efficacy emerging from their work.

Disclosures

Drs Whitlock and Healey have no disclosures related to the subject matter of this letter. Both the Mayo Clinic and Dr Holmes have financial interest in technology related to LAA occlusion. That technology has been licensed to Boston Scientific.

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