Letter to the Editor

In Response to Letter to the Editor Regarding: Evaluation and Treatment of Pulsatile Tinnitus Associated With Sigmoid Sinus Wall Anomalies

Dear Editor:

We appreciate Dr. Monsell’s kind and thoughtful comments on our article “Evaluation and Treatment of Pulsatile Tinnitus Associated With Sigmoid Sinus Wall Anomalies.” The optimal technique for repair of these defects is no doubt still uncertain, and various reasonable approaches and materials should still be considered. The goals of reconstruction should be to eliminate the sound and prevent recurrence. The latter is particularly important because it is likely that at least some of the factors that predispose to development of the sinus wall anomaly persist even after surgery. Dr. Monsell’s advocacy for use of a broad application of bone wax along the length of the skeletonized sigmoid sinus rests on two premises: 1) Extensive temporal bone pneumatization may allow intracranial vascular pulsations to be perceived via the mastoid; and 2) broader application of bone wax across the entire sigmoid sinus addresses this possible concern. Regarding the second premise, whereas our soft-tissue graft only covers the dehiscent area, which is where the sinus wall dura is attenuated, the bone cement and bone dust do in fact cover a much broader area of the skeletonized sigmoid sinus, although not typically all the way to the siphon proximal to the jugular bulb as Dr. Monsell may be doing. As for the first premise, neither of these approaches addresses extensive pneumatization in other areas of the temporal bone. It is certainly possible that persistent postoperative pulsatile tinnitus could be due to an unaddressed area of dehiscence or thinning, such as over the jugular bulb, carotid artery, perisigmoid air cells, zygomatic root, or some other location.

However, these issues address the likelihood of initial surgical success but not the risk of recurrence. In patients with a diverticulum, one could be reasonably concerned that the relatively soft bone wax by itself would not suffice to prevent recurrence of the diverticulum (if it was treated with reduction first), or progressive enlargement (if it was only treated by coverage with bone wax without reduction). Furthermore, if a percentage of people who present with dehiscence alone are susceptible to developing a diverticulum, this population might also be at risk for recurrence if treated with bone wax alone.

We are gratified that there is increasing recognition and discussion of this pathologic entity, with ongoing efforts to better understand the optimal treatment approach.

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BIBLIOGRAPHY