PROCEEDINGS OF THE
NORTH AMERICAN VETERINARY CONFERENCE
VOLUME 20

JANUARY 7-11, 2006
ORLANDO, FLORIDA

SMALL ANIMAL EDITION

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SUBTOTAL EAR CANAL ABLATION

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Total ear canal ablation (TECA) with lateral bulla osteotomy is a treatment option for dogs and cats with end-stage otitis externa, or masses confined to the ear canal. As described, the procedure involves a circumferential incision around the funnel-shaped auricular cavity and through the auricular cartilage.

A skin incision is then made over the vertical ear canal. The vertical and horizontal ear canals are dissected free of the soft-tissues to the level of the tympanic bulla and a bulla osteotomy is performed. A modification of this technique for dogs with erect ears has been described.

The purpose of the modification was to avoid a change in ear carriage associated with excision of the medial portion of the auricular cartilage. An inverted L-shaped skin incision is made over the vertical canal, just ventral to the auricular cavity, to facilitate exposure. The annular cartilage of the vertical canal is transected at this point, followed by routine dissection and removal of the remaining vertical and horizontal canals. The horizontal portion of the L-shaped skin incision is sutured to the remaining cut-end of the vertical canal. The distal portion of the vertical canal is thus preserved resulting in a stoma just ventral to, and communicating with, the horizontal ear canal. The subjective impression of the surgeons performing this technique is that it is easier to perform than a standard TECA, results in less hemorrhage, and may be less painful. Prospective studies are needed to address these issues. Because of these potential benefits, as observed following performance of subtotal ear canal ablation on several dogs with erect ears, it was subsequently performed on nine dogs with pendulous ears and minimal or no distal ear canal involvement.

Animals that have masses or gross changes to the vertical ear canal secondary to otitis externa are not candidates for subtotal ear canal ablation. This would include most pendulous eared breeds, including Cocker Spaniels, which typically have significant involvement of the distal ear canal and auricular cavity by the time TECA is considered. The risk of recurrent disease in the remaining vertical canal would be too great to warrant these tissue-sparing techniques. Six of 24 ears (25%) developed protracted auricular cavity skin infections which eventually resolved with medical management. This compares to a similar presence of recurrent dermatologic problems associated with the pinna in 10 of 38 (26%) dogs following the standard TECA technique. Although all superficial infections were corrected with medical management, owners should be made aware of that possibility prior to performing subtotal ear canal ablation, even if there is no distal involvement at the time of surgery, and standard TECA-LBO should be discussed as an alternative.

Five animals (26%) without neurologic signs at presentation developed transient facial nerve paresis/paralysis. While retraction could have contributed to facial nerve trauma in these cases, the
frequency of this complication is similar to previous evaluations of the standard TECA technique.\textsuperscript{1,6,7} The subjective impression of the surgeons who have performed this procedure is that facial nerve identification and retraction is no more difficult than with a standard TECA, although in the cat the skin incision was modified to improve exposure. As with the standard technique, owners should be made aware of the possibility of postoperative neurologic complications.

References

4. Mathews KG, Hardie EM, Murphy M. Subtotal ear canal ablation: results in 18 dogs and one cat with minimal distal ear canal pathology. Submitted: J Amer Anim Hosp Assoc 7/05.