Retrosigmoid Craniectomy for Resection of Epidermoid causing Trigeminal Neuralgia

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Abstract

The differential diagnosis for trigeminal neuralgia like-symptoms includes cerebello-pontine angle lesions causing regional mass effect upon the trigeminal nerve (Fig. 1). Here we present an operative video manuscript of a patient experiencing trigeminal neuralgia, secondary to an epidermoid cyst, in which a retrosigmoid craniectomy was performed to resect the epidermoid and decompress the trigeminal nerve (Fig. 2). This video highlights the operative nuances to achieving a successful surgery, including appropriate patient positioning, dural exposure to the transverse-sigmoid sinus junction, arachnoid dissection, and decompression of cranial nerves. A gross total resection was achieved; the patient reported immediate relief of facial pain post-operatively and has been pain free at the ten month follow-up. The link to the video can be found at: https://youtu.be/ja2eE0uGk4E.

Keywords
► epidermoid cyst
► trigeminal
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► technique

Conflict of Interest
None.

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Fig. 1  Axial diffusion weighted and axial T2 B-FFE MRI demonstrating a diffusion restricting lesion in the right cerebellopontine angle compressing the root entry zone of the right trigeminal nerve and indenting the pons. B-FFE, balanced fast field echo; MRI, magnetic resonance imaging.

Fig. 2  A right retrosigmoid craniectomy demonstrated a pearly white, friable lesion (arrows) compressing and encasing the trigeminal nerve (\(\text{\textsuperscript{\textprime}}\)) that was diagnosed as an epidermoid cyst on pathology.