

Juxtapellar Meningiomas And Fenestration Of The Optic Canal – Clinical And Visual Outcomes

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Purpose :

Optic canal invasion in juxtapellar meningiomas has been proposed to cause visual loss and is clinically important when long term visual deterioration occurs after successful excision of the tumour. Imaging of the optic canal is fraught with difficulties given its size and interface with air and fat. Visual failure has a significant impact on the quality of life of patients. This study compares the different locations and subtypes of meningiomas resulting in visual failure and the different surgical strategies used to tackle them. The focus of the study is fenestration of the optic canal in juxtapellar meningiomas.

Methods:

Over a 9 year period 1007 operated meningioma cases were reviewed of which there were 80 juxtapellar meningiomas (sphenoorbital, planum sphenoidale, tuberculum sellae, sphenoid wing and olfactory groove meningiomas). A retrospective review of the notes and radiology were carried out examining grade, extent of resection, canal fenestration and outcome.

Results:

The mean age of the patients was 53 and 75% were female. The most common location was sphenoidal. 25% of cases demonstrated hyperostosis of the optic canal. Optic canal fenestration revealed occult tumour particularly in tuberculum sellar meningiomas but also in unexpected cases such as olfactory groove tumours. Optic canal fenestration is safe and did not cause visual deterioration. Post-operative visual improvement was noted in these cases.

Conclusion:

Opening the optic canal is crucial in determining intra-canalicular tumour extent and is a safe technique.