


CASE REPORT

A caroticoavernous fistula without vascular injury following endoscopic transsphenoidal excision of a tuberculum sellae meningioma—A case report

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Abstract

Caroticoavernous fistulae can occur following transsphenoidal surgery even without evidence of carotid artery injury. A role of vascularized flap reconstruction may be contributory.

KEYWORDS

caroticoavernous fistula, endoscopy, meningioma, skull base

1 | INTRODUCTION

Caroticoavernous fistulae are rare complications following carotid artery injury during transsphenoidal surgery. The incidence of this complication without carotid injury has not been reported previously. The use of vascularized mucosal flaps may be contributory. This lesion can be treated with endovascular techniques.

The incidence of vascular complications following endoscopic surgery of the skull base is a rare but potentially devastating complication. This is usually associated with intraoperative injury to the adjacent internal carotid artery and/or cavernous sinuses, with one potential consequence being formation of a caroticoavernous fistula. However, the formation of such a fistula postoperatively in the absence of such an injury has not been reported in the literature, and may involve alternate mechanisms to direct trauma.

2 | CASE REPORT

A 49-year-old woman with underlying dyslipidemia who presented to us with a chronic progressive bilateral visual loss and headaches for 8 months, with the left eye being more severely affected. Examination revealed no light perception in the left eye, the right eye's visual acuity being 6/12 corrected, with a right temporal hemianopia. There were no other cranial nerve palsies. Fundoscopy of the left eye showed optic atrophy.

MRI Brain revealed a sellar enhancing mass with suprasellar extension measuring $3.4 \times 2.9 \times 2.8$ cm (Figures 1 and 2) with a dural tail consistent with a tuberculum sellae meningioma. Pituitary hormonal profile was within normal ranges.

She underwent endoscopic endonasal transtubarcular tumor excision with complete excision of the tumor with a multilayered repair of the dura utilizing a nasoseptal flap, tissue glue, and artificial dura (Duragen). The tumor was

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