# Transverse sinus meningioma

Combined supra/infratentorial approach to meningiomas of the transverse sinus [1].

Meningiomas of the transverse–sigmoid sinus junction área

Meningiomas with exclusive or prevalent dural attachment over the transverse-sigmoid sinus junction area represent a well-defined subgroup of posterior fossa meningiomas. This study reports 13 cases of this localisation (10.8% of all infratentorial meningiomas). In this series, six patients (46%) were discovered as an incidental MR finding. One patient with a small (1.5 cm) meningioma presented with an intracranial hypertension syndrome due to severe obstruction of the unique transverse-sigmoid sinus junction. A MR angiography was performed in 11 patients; it showed intraluminal tumour in two cases with dominant and unique transverse sinus, respectively. Tumour removal with excision of the outer dural layer and coagulation of the dural attachment (Simpson II) was performed in 11 cases; in two others with focal sinus invasion, removal of the small intravenous tumour fragment was not performed (Simpson III). No post-operative complications occurred. Remission of pre-operative symptoms was obtained in all symptomatic cases. The management of the transverse-sigmoid sinus junction is the main problem of meningiomas of this region. Excision of the outer dural layer and coagulation of the dural attachment are in our opinion sufficient in most cases, even when there is tumour invasion of the patent venous lumen. The resection of the sinus wall should be reserved to cases with a totally obstructed segment and symmetrical or asymmetrical but present transverse and sigmoid sinuses [2].

We report a 55-year-old woman with intracranial hypertension due to unilateral extrinsic compression of the left transverse sinus by a meningioma. Because of the high risk of the conventional neurosurgical intervention, she underwent an endovascular procedure consisting of a transstenotic stent placement in the left transverse sinus. One month after stenting, her ophthalmological examination revealed complete regression of the bilateral papilledema, with persistent improvement at 1 year. Cerebral venous-stenting could be a safe alternative for patients suffering from intracranial hypertension caused by extrinsic sinus compression [3].

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A 69-year-old female complained of headache and tinnitus. Computed tomography, magnetic resonance imaging, and angiography showed a tumour in the right transverse sinus extending to the transverse-sigmoid sinus junction, a dural arteriovenous fistula (AVF), and right transverse-sigmoid sinus thrombosis with the downstream from the right sigmoid sinus involved by the tumour. Right external carotid angiography showed the tumour to be supplied by many branches of the right occipital artery, the posterior branches of the middle meningeal artery, and the posterior auricular artery, and the dural AVF fed by the occipital artery and the meningeal branches of the right vertebral artery. She underwent surgery via a combined right supra- and infratentorial approach. The tumour had invaded and blocked the right transverse sinus, which was resected. After surgery the patient was free of headache and tinnitus was diminished. Histological examination found that the tumour was a fibrous meningioma and that the orifice of the vein at the transverse sinus was blocked by the tumour. Serial follow-up cerebral angiography 2 months after surgery showed no change in the AVF, but 9 months after surgery confirmed disappearance of the AVF. This AVF was caused by occlusion of the right transverse sinus by the meningioma and was an acquired lesión [4].

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