# Lateral ventricle epidermoid

Epidermoid of the lateral ventricle is a relatively rare intraventricular epidermoid.

Data suggests that it is unacceptable to assume that epidermoids have a primary location within the lateral ventricle [1)].

## Diagnosis

MRI is suggestive of a cystic lesion, and is confirmed to be a typical epidermoid within the lateral ventricle at operation, often having a connection to the midline through the choroidal fissure. The cysts should be excised with no additional morbidity. Histopathology reveals typical stratified squamous epithelium [2)].

These pearly tumors appear isointense or a little hyperintense on T1-weighted imaging, very characteristic. They are enhanced after gadolinium injection and appear strongly hyperintense on T2-weighted imaging. An incomplete removal with a thorough long-term follow-up is necessary [3)].

Conventional imaging (CT, T1/T2, MRI) could not differentiate the tumor from the surrounding cerebral spinal fluid (CSF). On diffusion-weighted and diffusion anisotropy images the tumor was clearly seen as a hyperintense mass surrounded by hypointense CSF, highly suspected for epidermoid. Diffusion-tensor imaging (DTI) accentuated its lobulated structure and clearly demonstrated its relationship to neighboring white matter tracts. We suggest that in case of the suspicion of a space-occupying lesion in CSF containing areas, not distinguishable from CSF by conventional MR imaging, diffusion-weighted and diffusion-tensor MR imaging should be added [4)].

## Treatment

The lesion can be largely removed through a transcallosal approach [5)].

As these tumours are soft and relatively avascular, they appear to be ideally suited for endoscopic surgical excision. At present the instruments available are specifically designed for endoscopic intra ventricular surgeries, limitations being inability to rapidly debulk the tumour and achieve adequate haemostasis.

A case of lateral ventricular epidermoid that was excised endoscopically using a system originally designed for endoscopic disc surgery.

A multi portal endoscope that allows use of routine pituitary instruments would enable the surgeon to achieve haemostasis effectively and, should be a viable alternative to microscope for excision of intra ventricular tumours [6)].

Spilling of tumor material during surgery was presumed to have contributed to the development of a postoperative acute hydrocephalus, either by obstructing the cerebospinal fluid pathways or by causing an aseptic meningitis in conjunction with cholesterol in the ventricular fluid in the postoperative period [7)].

1)

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