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I.H. Lee, C.J. Song, J.S. Yeon, S.-H. Kim, K.-S. Song and M.-K. Yeo

This information is current as of June 23, 2025.

AJNR Am J Neuroradiol 2011, 32 (3) E57 doi: https://doi.org/10.3174/ajnr.A2467 http://www.ajnr.org/content/32/3/E57

Craniopharyngioma in the Prepontine Cistern

We report a pathologically proved craniopharyngioma in the prepontine cistern. A 50-year-old woman presented with swallowing difficulty for 1 month. She underwent brain MR and CT imaging.

T1-weighted, T2-weighted, and contrast-enhanced T1-weighted images showed a large peripheral enhancing cystic mass in the prepontine cistern. Inside the lesion, high signal intensity (SI) on T1 and low SI on T2-weighted imaging were noted (Fig 1). The CT scan showed features similar to those on the MR images, except for the addition of a peripheral small calcification in the cystic lesion. We could not find any connection between the mass in the prepontine cistern and the sellar or parasellar area. The mass was partially surgically removed, and histopathologic examination revealed craniopharyngioma in the prepontine cistern.

Craniopharyngiomas can arise anywhere along the craniopharyngeal canal. However, there are several reports of craniopharyngiomas with unusual locations—that is, in the posterior cranial fossa, without a connection to the sellar or parasellar area. The locations were the temporal lobe, pons and fourth ventricle, and cerebellopontine angle and fourth ventricle.¹⁻³

In our case, the location was the prepontine cistern, which was not previously described, to our knowledge. Considering the location of the craniopharyngioma in our patient in contrast to the usual location, the hypothesis that most craniopharyngiomas occur along the craniopharyngeal canal could not be applied. Instead, the suggestion of Solarski et al,⁴—that is, ectopic craniopharyngiomas might originate from totipotential or multipotential cells—might be applied to our case.

In conclusion, although the location in our patient was very unusual, craniopharyngiomas can occur anywhere.

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 - I.H. Lee C.J. Song J.S. Yeon Department of Radiology S.-H. Kim Department of Neurosurgery K.-S. Song M.-K. Yeo Department of Pathology Chungnam National University Hospital Chungnam National University School of Medicine Daejeon South Korea

DOI 10.3174/ajnr.A2467



Fig 1. A 50-year-old woman with a craniopharyngioma in the prepontine cistern. *A*, Sagittal T1-weighted image shows a cystic mass in the prepontine cistern. *B*, Contrast-enhanced T1-weighted sagittal image shows a peripheral enhancing cystic mass in the prepontine cistern.