

Pleomorphic Xanthoastrocytoma MRI

Rippe et al. reported the MR findings in two cases of histologically documented temporal lobe PXA. The two well-circumscribed lesions were predominantly cystic and both contained a Gd-DTPA enhancing mural nodule. The latter was isointense with the gray matter on T1-weighted images and hyperintense on T2-weighted scans. Minimal surrounding edema was present. Histologically, PXA may be confused with [glioblastoma](#) due to the pronounced cellular pleomorphism. Because of their potentially more indolent behavior compared with Glioblastoma, it is important to recognize the gross morphologic characteristics of this rare tumor on MR. The MR pattern of a cystic lesion with enhancing mural nodule is characteristic of PXA, but not diagnostic, and other lower-grade gliomas such as [ganglioglioma](#) and [pilocytic astrocytoma](#) need to be considered. The MR and CT appearance of PXA can provide critical information for the pathologist, especially when only a small amount of tissue is obtained for histologic evaluation ¹⁾.

T1

solid component iso to hypointense c.f. grey matter cystic component low signal leptomeningeal involvement is seen in over 70% of cases

T1 C+ (Gd)

solid component usually enhances vividly

T2

solid component iso to hyperintense c.f. grey matter

cystic component high signal

on the T2 FLAIR sequence, cystic areas show hyperintensity relative to CSF due to higher protein contents little surrounding vasogenic edema

¹⁾

Rippe DJ, Boyko OB, Radi M, Worth R, Fuller GN. MRI of temporal lobe pleomorphic xanthoastrocytoma. J Comput Assist Tomogr. 1992 Nov-Dec;16(6):856-9. doi: 10.1097/00004728-199211000-00004. PMID: 1385498.

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