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# Intraventricular pleomorphic xanthoastrocytoma with anaplastic features.

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Pleomorphic xanthoastrocytoma (PXA) is a rare astrocytic tumor that usually occurs in the superficial cerebral hemispheres of children and young adults and has a relatively favorable prognosis. We report an unusual case of supratentorial, intraventricular tumor in a 52-year-old man. The tumor was composed of pleomorphic cells, including giant cells, most of which were multinucleated, and small cells. In addition, frequent xanthic changes in the cytoplasm of the tumor cells, and widespread reticulin deposits and lymphocytic infiltrates in the stroma were characteristic features. Large areas of necrosis were also evident. However, mitotic figures were rare (1-2 mitoses per 10 high-power fields). Many tumor cells were positive for GFAP, and a number were positive for neurofilament protein and synaptophysin, indicating their neuronal differentiation. In addition, occasional tumor cells were positive for CD34. p53 protein was entirely negative in the tumor cells. In diagnosing this tumor histopathologically, differentiation between PXA and giant cell glioblastoma (GCG), a rare variant of glioblastoma, was problematic. However, considering the overall histopathological picture, a final diagnosis of PXA with anaplastic features was made. The present case indicates that PXA can occur as an intraventricular tumor, and suggests that in some instances, it would be very difficult to differentiate PXA and GCG histopathologically.

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