Primary cerebral amyloidoma, a rare kind of tumor.

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Objective: Intracerebral amyloid deposits are present in patients with amyloid angiopathy and Alzheimer’s disease. Primary cerebral amyloidoma, a different kind of amyloid deposits, mimicking malignant intracerebral tumor, have so far been described in 7 patients. We present another case of primary cerebral amyloidoma.

Methods: A 35-year-old man with paresis of the right lower limb showed a first attack of generalized seizure 3 days prior to admission. Computed tomography (CT) and magnetic resonance imaging (MRI) revealed a contrast enhancing lesion in the left precentral region. 123J-AMT-SPECT showed an increased uptake and 18FDG-PET increased metabolism activity in the cerebral focus, highly suggestive of malignant glioma. Laboratory tests were within normal limits. Surgery was performed to secure histological diagnosis.

Results: Histological examination revealed deposits of eosinophilic and Congo-red positive material surrounded by lymphoplasmacellular infiltrates. Immunohistochemically, the latter was positive for Vs38c, as sign for the plasmacellular origin. Reactive astrocyts and microglia between the lymphoplasmacellular areas were shown by GFAP and CD68. Postoperatively the clinical status and MRI follow-up examination remained stable.

Conclusion: Primary amyloidoma is a rare benign cerebral tumor. This amyloid deposit seems to be a product of a low-grade plasmacytoma tumor of the brain.