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Titel des Beitrags: Intracranial ganglioglioma: clinicopathological and MRI findings in 16 patients.

Abstract: AIM: To record the clinical findings and magnetic resonance imaging (MRI) characteristics of intracranial gangliogiomas in 16 patients. MATERIALS AND METHODS: Sixteen patients were imaged using unenhanced and contrast-enhanced MRI. Eight patients underwent unenhanced CT and of these, three underwent contrast-enhanced CT. Two radiologists read the images retrospectively. The images were studied with regard to location, size, margin, signal intensity, enhancement characteristics, cystic changes, and presence of calcifications. Clinical data, such as presenting signs and symptoms, physical findings, and medical histories, were collected. Histopathological and immunohistochemical studies were performed and analysed by two pathologists. RESULTS: In 12 cases the tumours were located in one of the cerebral hemispheres; in the other cases they were located in the brainstem, cerebellum, suprasellar area or the thalamus. The tumour dimension varied from 1-7 cm, with a mean of 3.6 cm +/- 1.8 cm. The MRI features of ganglioglioma in the present cohort can be divided into three patterns: cystic (n=2), cystic-solid (n=6), and solid (n=8). Solid lesions had a predilection for the temporal lobe; cystic and cystic-solid tumours had a wide anatomical distribution. Cystic lesions were significantly smaller than both cystic-solid and solid lesions (F=4.28,
Cystic changes in the cystic-solid tumours showed one of the following patterns: those with walls showing contrast enhancement, those containing an enhancing nodule, or cysts without an obvious wall. The solid portion of cystic-solid gangliogliomas and the entire tumour in solid tumours showed homogeneous enhancement of variable degrees on T1-weighted (T1W) spin-echo (SE) images. Five tumours had mild or moderate oedema. In one patient two separate gangliogliomas were found, each lesion exhibiting different MRI features: solid and cystic-solid. One case of cortical ganglioglioma was found, causing bone erosion due to pressure. One tumour with chronic haemorrhage was found in the study. CONCLUSION: MRI features of gangliogliomas are non-specific. A ganglioglioma should be suspected when a tumour shows the following features: (1) a solid lesion located in the temporal lobes with mild or no oedema and homogeneous enhancement on SE T1W images; or (2) a small cystic lesion or cystic-solid mixed mass with a wall enhancement or a markedly enhanced nodule. We report a patient with two separate gangliogliomas and a case with bone erosion.

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