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[18] Thom M, Blümcke I, Aronica E. Long-term epilepsy-associated

· 临床医学图像 ·

胶质母细胞瘤

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Glioblastoma

HAN Tong

Department of Neuroradiology, Tianjin Huanhu Hospital, Tianjin 300060, China (Email: mrbold@163.com)

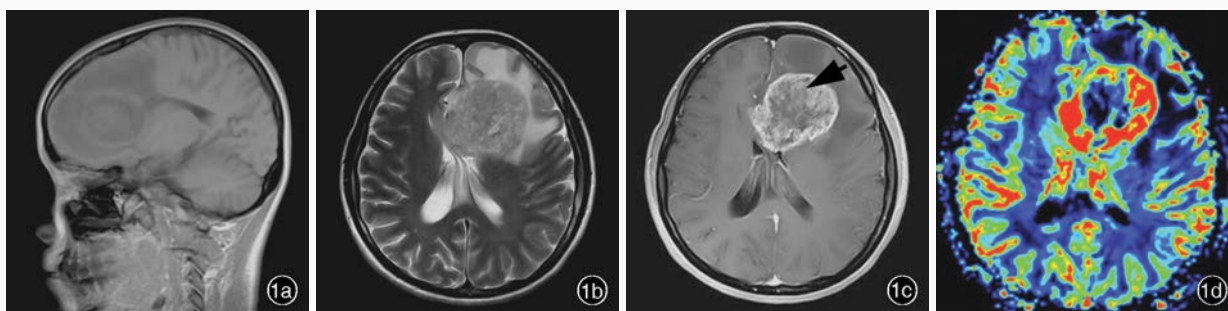


图1 男性患者,41岁。主因左侧额部疼痛2个月就诊。头部MRI检查显示左侧额部和胼胝体膝部占位性病变。术后病理证实胶质母细胞瘤(WHO IV级) 1a 矢状位T₁WI显示,左侧额部和胼胝体膝部类卵圆形病灶,呈低信号,信号强度不均匀,病灶周围明显水肿,侧脑室额角受压 1b 横断面T₂WI显示,病灶呈不均匀高信号,其内可见坏死囊 1c 横断面增强T₁WI显示,病灶边缘呈明显“花环”样环形强化,病灶内不均匀强化提示“假栅栏征”(箭头所示) 1d 横断面脑血容量(CBV)伪彩图显示,肿瘤边缘明显高灌注(红色区域所示),提示大量肿瘤新生血管

Figure 1 A 41-year-old male patient had suffered left frontal headache for 2 months and came to clinic. MRI showed an occupying lesion located in the left frontal lobe and genu of the corpus callosum. Postoperative pathological diagnosis revealed glioblastoma (WHO IV). Sagittal T₁WI showed an oval lesion with heterogeneous low-intensity signal located in the left frontal lobe and genu of the corpus callosum with obvious peritumoral edema. The adjacent frontal horn of the lateral ventricle was compressed (Panel 1a). Axial T₂WI showed heterogeneous high-intensity lesion with cystic component within it (Panel 1b). Axial enhanced T₁WI showed "ring" enhancement and a relatively weak or unremarkable heterogeneous central enhancement which revealed the "pseudopalisade" sign (arrow indicates, Panel 1c). Axial cerebral blood volume (CBV) map showed significantly increasing perfusion in the edge of tumor (red areas indicate), indicating obvious tumor vascularity (Panel 1d).

胶质母细胞瘤又称多形性胶质母细胞瘤(GBM),是星形细胞肿瘤中恶性程度最高的类型,属WHO IV级,分为原发性和继发性。其亚型包括巨细胞型胶质母细胞瘤和胶质肉瘤,占神经上皮组织肿瘤的23%;可发生于任何年龄阶段,以45~65岁高发,30岁以下者鲜见;男性明显高于女性。病变好发部位依次为额颞叶、顶叶和枕叶,小脑和基底节极为少见,可同时累及多个脑叶。肿瘤细胞分化差,常为多形性,密度高,异型性明显,核分裂活跃。明显的假“栅栏”样坏死和“肾小球/花蕾”样微血管增生是其组织病理学特点。肿瘤呈浸润性生长,可经胼胝体或丘脑间粘束越过中线侵犯对侧大脑半球,常见沿白质纤维束和血管周围间隙播散,也可沿室管膜、软脑膜下隙和蛛网膜下隙播散,少见硬脑膜和颅骨侵犯。

CT显示肿瘤呈边界不清的混杂密度影,常见瘤内出血所致高密度或囊性变、坏死;肿瘤跨胼胝体生长至对侧大脑半球时,呈“蝴蝶征”,水肿和占位效应明显。MRI在一定程度上能够揭示肿瘤的病理改变:T₁WI呈不均匀低信号(图1a),多合并坏死、囊性变或出血性改变;T₂WI呈混杂高信号,中心坏死区为高信号,肿瘤生长区周围呈等信号,部分病变与肿瘤周围水肿分界不清,肿瘤内异常血管增生形成线样“流空效应”区(图1b)。增强扫描肿瘤边缘呈显著对比强化,呈“花环”样(图1c)、不规则环形、岛形或螺旋形改变;囊变性和坏死区周围肿瘤实质呈特征性“假栅栏征”,即圆形、椭圆形未强化区散在分布在强化区内,类似乳突蜂窝小房。灌注成像显示,病灶周围和病灶内有多处高灌注区(图1d),提示大量肿瘤血管生成。胶质母细胞瘤虽具典型影像学特征,但仍需注意与颅内单发转移瘤、间变性胶质瘤、淋巴瘤等肿瘤性病变,以及脑脓肿、结核瘤、脱髓鞘假瘤等非肿瘤性占位性病变相鉴别。

(天津市环湖医院神经放射科韩彤供稿)