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## · 临床医学图像 ·

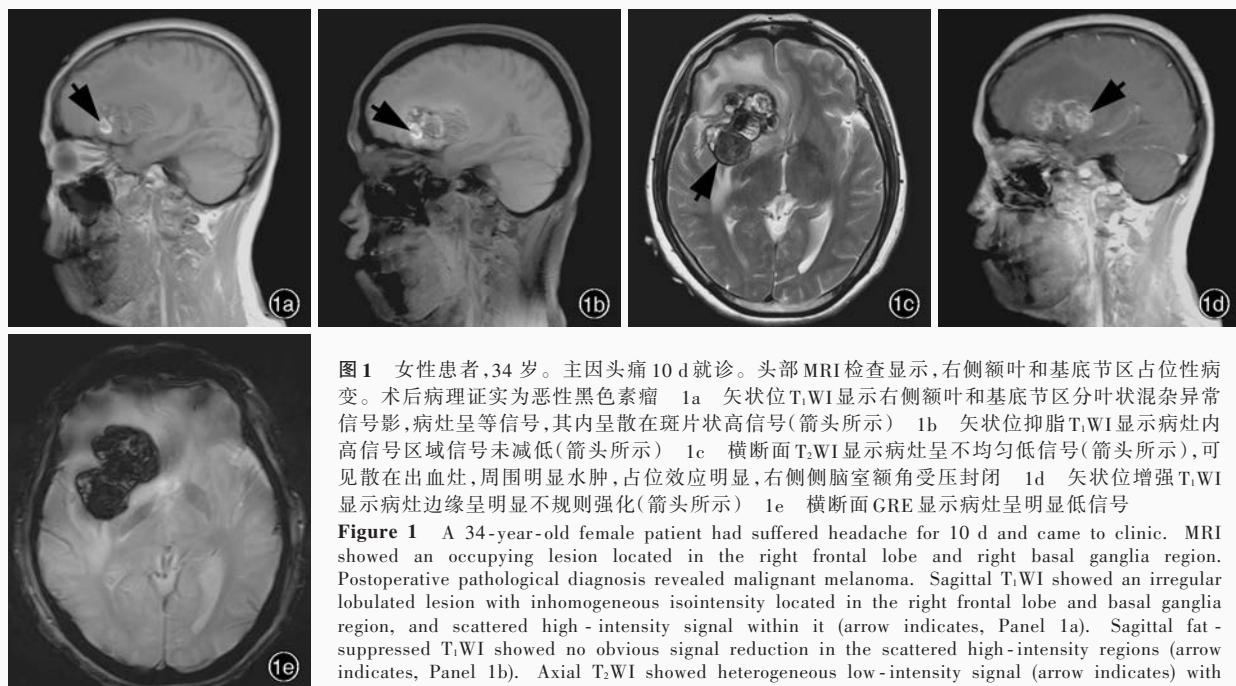
### 黑色素瘤

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#### Melanoma

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**图1** 女性患者,34岁。主因头痛10 d就诊。头部MRI检查显示,右侧额叶和基底节区占位性病变。术后病理证实为恶性黑色素瘤。1a 矢状位T<sub>1</sub>WI显示右侧额叶和基底节区分叶状混杂异常信号影,病灶呈等信号,其内呈散在斑片状高信号(箭头所示) 1b 矢状位抑脂T<sub>1</sub>WI显示病灶内高信号区域信号未减低(箭头所示) 1c 横断面T<sub>2</sub>WI显示病灶呈不均匀低信号(箭头所示),可见散在出血灶,周围明显水肿,占位效应明显,右侧侧脑室额角受压封闭 1d 矢状位增强T<sub>1</sub>WI显示病灶边缘呈明显不规则强化(箭头所示) 1e 横断面GRE显示病灶呈明显低信号

**Figure 1** A 34-year-old female patient had suffered headache for 10 d and came to clinic. MRI showed an occupying lesion located in the right frontal lobe and right basal ganglia region. Postoperative pathological diagnosis revealed malignant melanoma. Sagittal T<sub>1</sub>WI showed an irregular lobulated lesion with inhomogeneous isointensity located in the right frontal lobe and basal ganglia region, and scattered high - intensity signal within it (arrow indicates, Panel 1a). Sagittal fat - suppressed T<sub>1</sub>WI showed no obvious signal reduction in the scattered high-intensity regions (arrow indicates, Panel 1b). Axial T<sub>2</sub>WI showed heterogeneous low-intensity signal (arrow indicates) with several hemorrhagic foci. Marked surrounding peritumoral edema revealed an obvious mass effect. The adjacent frontal horn of the right lateral ventricle was compressed (Panel 1c). Sagittal T<sub>1</sub>WI with contrast showed obviously irregular enhancement (arrow indicates, Panel 1d). Axial GRE showed very low-intensity signal within the lesion (Panel 1e).

黑色素瘤为颅内少见恶性肿瘤,分为原发性和继发性两种类型。原发性黑色素瘤的组织来源为软脑膜、蛛网膜和硬脑膜黑色素细胞,不伴颅外黑色素瘤或内脏转移;主要位于颅底、脑干底面、视交叉和大脑沟裂,可沿蛛网膜下隙呈小结节播散,引起受累区域脑膜粘连,甚至脑积水,亦可侵犯脑表面血管致蛛网膜下隙出血,少数累及颅骨。继发性黑色素瘤临床十分常见,其发生率在脑转移瘤中仅次于肺癌和乳腺癌,以灰质或灰白质交界区好发,常呈多发。CT主要表现为圆形和(或)类圆形、结节样高密度影,亦可呈等密度,低密度鲜见;增强扫描可见明显的结节样或环形强化灶,合并出血和坏死。由于黑色素为顺磁性肿瘤,可缩短T<sub>1</sub>和T<sub>2</sub>弛豫时间,故MRI表现具有一定特异性:T<sub>1</sub>WI呈高信号(图1a),抑脂序列高信号区域无信号下降,提示为非脂肪组织(图1b);T<sub>2</sub>WI呈低信号(图1c);FLAIR成像为高信号。由于肿瘤组织黑色素含量不同或出血信号干扰,黑色素瘤在MRI上可呈现以下类型:(1)黑色素型,表现为T<sub>1</sub>WI高信号、T<sub>2</sub>WI低信号。(2)不含黑色素型,T<sub>1</sub>WI低或等信号、T<sub>2</sub>WI高或等信号。(3)混合型,与前二者均不同。(4)血肿型,肿瘤组织内伴不同时期的血肿征象(图1c)。黑色素瘤组织血运丰富,易侵犯血管壁致肿瘤组织出血和广泛经血行转移。MRI增强扫描呈现明显的结节样或环形强化灶(图1d),梯度回波序列(GRE)呈不均匀低信号,提示肿瘤组织内含顺磁性物质或出血(图1e)。脑血管造影所见肿瘤血供丰富和对比剂染色征象具有较高的临床诊断价值。对于影像学特征不典型的黑色素瘤应注意与胶质瘤合并瘤卒中、脑膜瘤及其他类型脑转移瘤、单纯脑出血等相鉴别,脑表面肿瘤侵犯邻近脑膜和血管时,应注意与单纯蛛网膜下隙出血或脑膜炎相鉴别。

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