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· 临床医学图像 ·

椎动脉夹层

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Vertebral arterial dissection

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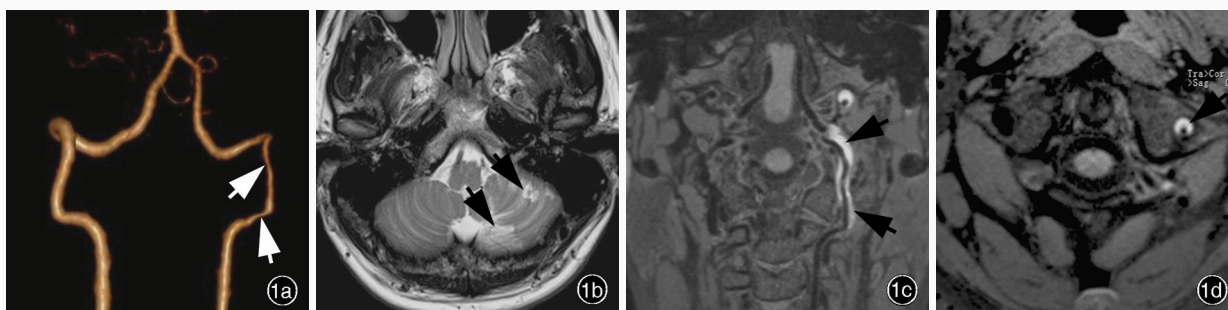


图1 男性患者,27岁,因颈部按摩后头晕和后枕部疼痛,进行性加重伴恶心和非喷射状呕吐,临床诊断为左侧小脑亚急性缺血性卒中,左侧椎动脉V3段夹层,壁内血肿形成 1a CTA容积重建(VR)图显示,左侧椎动脉V2段和V2~V3交界区狭窄(箭头所示) 1b 横断面T<sub>2</sub>WI显示,左侧小脑半球斑片样高信号影(箭头所示) 1c 冠状位抑脂黑血T<sub>1</sub>WI曲面重建(CPR)图显示,左侧椎动脉V2~V3交界区和V3段壁内血肿,呈高信号(箭头所示),邻近管腔受压变窄 1d 横断面抑脂黑血T<sub>1</sub>WI(C<sub>1</sub>椎体平面)显示,左侧椎动脉管腔前部“新月”样壁内血肿,呈高信号(箭头所示),邻近管腔受压变窄

Figure 1 A 27-year-old male suffered from dizziness and occiput pain after neck massage, then dizziness aggravated with nausea and non-spraying vomit. Clinical diagnosis was subacute ischemic stroke in left cerebellum and left vertebral arterial (V3 segment) dissection with intramural hematoma. CTA VR image showed stenosis of V2 segment of left vertebral artery and junctional area of V2 and V3 segment (arrows indicate, Panel 1a). Axial T<sub>2</sub>WI revealed patch high-intensity of left cerebellar hemisphere (arrows indicate, Panel 1b). Coronal CPR of fat suppression T<sub>1</sub>WI black blood sequence revealed intramural hematoma of hyperintensity (arrows indicate) in junctional area of V2 and V3 segment and V3 segment of left vertebral artery. Adjacent vessel lumen was compressed and narrowed (Panel 1c). Axial fat suppression T<sub>1</sub>WI black blood sequence (C<sub>1</sub> level) showed crescent-shaped high-intensity intramural hematoma in the anterior wall of left vertebral artery (arrow indicates). Adjacent vessel lumen was compressed and narrowed (Panel 1d).

椎动脉夹层(VAD)是各种原因致血液成分透过破损的椎动脉内膜进入管壁,导致管壁剥离分层形成血肿或壁内自发性血肿致血管狭窄、闭塞或破裂的一种疾病。主要与颈部屈伸或旋转、颈部按摩或运动损伤相关,结缔组织病等血管先天性因素或高血压等获得性因素也易使其发病率增加。椎动脉夹层根据发病部位分为颅外段(V1~3)和颅内段(V4),前者向动脉内膜下进展,导致管腔狭窄和血栓形成,引起短暂性脑缺血发作或缺血性卒中等症状;后者多发生于管壁肌层与外膜之间,不规则外凸形成夹层动脉瘤,易破裂致蛛网膜下隙出血。DSA具有时间动态性,可显示病变血管血流方式和管腔构型,诊断准确性较高,动脉晚期-静脉期假腔内对比剂滞留具有诊断意义。CTA和MRA为无创性方法,可提供管腔和壁内血肿致管径变化信息。典型椎动脉夹层管腔偏心性狭窄呈“鼠尾”样或锥形(尖端指向狭窄段)、不规则节段样和“串珠征”;不典型者管径正常或仅管腔轻度纤细或粗细不均(图1a)。管腔线样“内膜瓣征”和“双腔征”是明确诊断的直接征象,但不常见。MRI显示后循环区梗死灶(图1b)或低灌注可以间接提示椎动脉夹层。高分辨力MRI可同时提供管腔和管壁信息,准确显示真腔和假腔、内膜瓣、壁内血肿(图1c),具有重要诊断价值,横断面可见偏心性狭窄呈类圆形,低信号,多偏向管腔一侧(图1c,1d);壁内血肿呈动脉内壁“新月”样或环形等信号(急性期)或短T<sub>1</sub>、长T<sub>2</sub>信号(亚急性期;图1c,1d),信号高低取决于血肿形成时间;夹层动脉瘤可外凸呈不规则“囊袋”样。横断面偏心性狭窄伴动脉外径扩张,高度提示椎动脉夹层。“内膜瓣征”作为椎动脉夹层的直接证据,T<sub>2</sub>WI呈线样等信号,增强T<sub>1</sub>WI呈强化征象。椎动脉夹层起病隐匿,易漏诊或误诊,神经影像学的诊断意义重大。应注意与真性椎动脉动脉瘤附壁血栓、不稳定型动脉粥样硬化斑块伴斑块内出血、纤维肌肉发育不良致动脉狭窄相鉴别。

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