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·临床医学图像·

脊髓亚急性联合变性

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Subacute combined degeneration of spinal cord

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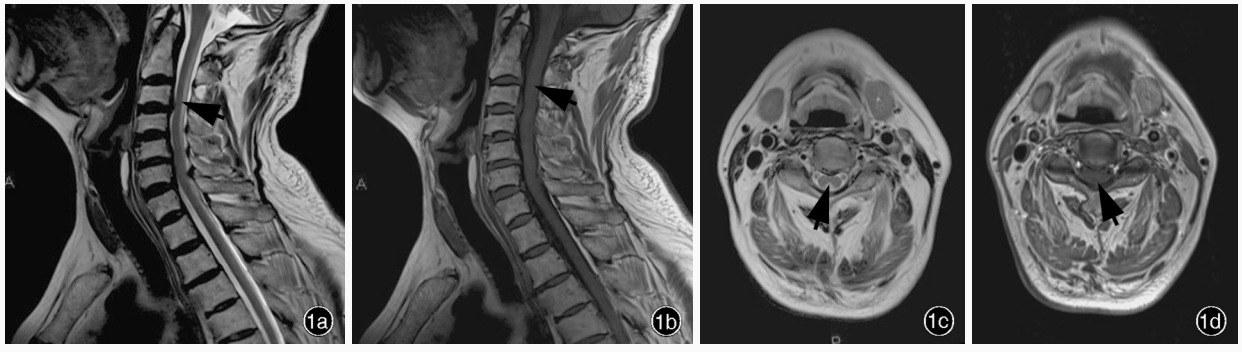

图1 男性患者，51岁。主因四肢麻木、无力3周就诊。头部MRI显示脊髓后部异常信号，累及多个脊髓节段。临床诊断为血清维生素B_{12}缺乏症（38.38 pmol/L） 1a 矢状位T_2WI显示C_2～T_3水平脊髓后部条带状异常高信号（箭头所示） 1b 矢状位T_1WI显示，病变呈等或略低信号（箭头所示） 1c 经C_{3-4}椎间盘水平的横断面T_2WI显示，病变位于脊髓后索，呈“倒V征”（箭头所示），脊髓侧索未见明显异常 1d 与1c同层面横断面增强T_1WI显示，病灶无明显强化（箭头所示）

Figure 1 A 51-year-old male was admitted to our hospital for a 3-week history of numbness and weakness of four limbs. MRI showed a belt-shaped area of abnormal intensity along posterior columns of spinal cord involving several segments. Serum B_{12} analysis confirmed the diagnosis of B_{12} deficiency (38.38 pmol/L). Sagittal T_2WI showed a belt-shaped high-intensity lesion in the dorsal aspect of spinal cord, extending from C_2 to T_3 (arrow indicates, Panel 1a). Sagittal T_1WI indicated isointensity or slightly low-intensity in the lesion (arrow indicates, Panel 1b). Axial T_2WI through the C_{3-4} disc level demonstrated the lesion appearing as an inverted "V" in the posterior columns of spinal cord (arrow indicates). The bilateral columns were not involved (Panel 1c). Axial enhanced T_1WI in the same level as Panel 1c showed no enhancement within the lesion (arrow indicates, Panel 1d).

维生素B_{12}是脱氧核糖核酸合成过程中的辅酶，人体自身无法合成，需经食物等外界途径摄取。各种原因所致维生素B_{12}缺乏将导致造血功能异常（恶性贫血）和神经系统病变，后者可累及脑实质、周围神经或视神经、脊髓后索和侧索。脊髓亚急性联合变性（SCD）即为维生素B_{12}缺乏症最常见的神经系统并发症，临床表现以脊髓后索和侧索损害致深感觉缺失、感觉性共济失调和痉挛性瘫痪为主，常伴周围性感觉障碍。临床症状无特异性，排除其他致脊髓后索和侧索损伤的疾病后，方可诊断为脊髓亚急性联合变性。病变多累及颈胸髓，光学显微镜观察，病变早期髓鞘肿胀、断裂，随后出现轴索变性、脱失。CT无诊断价值。MRI检查能够较好地显示脊髓病灶，表现为位于颈髓或胸髓后部的条带状异常信号影，T_2WI呈高信号（图1a），T_1WI呈等或略低信号（图1b），DWI呈高信号，连续累及多个脊髓节段，横断面显示病变位于脊髓后索，也可见同时或单纯累及脊髓侧索。位于颈髓后索的线样长T_2信号呈双侧对称性分布，表现为特征性“倒V征”（图1c）；位于胸髓的病变显示为对称性分布的“哑铃征”或“望远镜征”；增强扫描病灶无强化（图1d）。脊髓亚急性联合变性具有可逆性，早期诊断和治疗至关重要。尽管影像学征象具有特异性，但需与多种累及脊髓后索和侧索的髓内病变相鉴别，包括多发性硬化（MS）、外伤性脊髓损伤、横断性脊髓炎、脊髓缺血、获得性免疫缺陷综合征（AIDS）所致空泡样脊髓病等。

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