

BRIEF REPORT

Paraplegia as an initial manifestation of pancreatic cancer

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A 73-year-old woman with a walking difficulty was taken to a hospital. Physical examination demonstrated paraplegia. Magnetic resonance imaging showed the spinal cord being compressed by tumors of the upper thoracic spine (Fig. 1a). Diagnosed to be an oncological emergency, she was transferred to our hospital and underwent thoracic laminectomy and posterolateral fusion to decompress the spinal cord and remove the tumors, which pathologically turned out to be metastatic adenocarcinomas (Fig. 1b).

Diagnostic work-up for the primary tumor was subsequently undertaken. Contrast-enhanced computed tomography identified a small hypoattenuating area in the tail of the pancreas, with a slight dilation of the adjacent main pancreatic duct (Fig. 1c). Endoscopic ultrasonography (EUS) demonstrated a 21-milimeter hypochoic nodule at the same site (Fig. 1d). Pathologically, EUS-guided fine-needle aspiration and biopsy of the tumor demonstrated pancreatic ductal adenocarcinoma, which was consistent with the tumors of the thoracic spines (Fig. 1e).

Her paraplegia persisted but slightly improved following rehabilitation and radiotherapy for the remnant tumors of the thoracic spines. Afterward, she was transferred to another hospital for continuing rehabilitation and palliative care, refusing to receive chemotherapy.

Metastatic spinal cord compression (MSCC) is one of the most devastating complications of cancer. Patients often present with a history of progressive pain, paralysis, sensory loss, progressive spinal deformity, and loss of sphincter control.¹ MSCC is also an oncological emergency because patients will develop irreversible neurological deficits without immediate intervention. Prompt diagnosis and treatment such as radiation therapy (RT) and/or surgical decompression are required for a better neurological prognosis. Direct decompressive surgery plus stabilization followed by RT has increased efficacy compared with conventional RT or decompression alone in preserving neurological function, with a lower surgical risk, modest complication rates, and without compromising the remaining survival.² Significant prognostic factors for posttreatment ambulatory status are considered to be ambulatory status before treatment, interval from symptom to treatment, and time of developing motor deficits.² As this patient had rapidly progressive walking difficulty, she remained nonambulatory in spite of the immediate surgical intervention followed by fractionated RT.

In pancreatic cancer, paraplegia due to MSCC is extremely unusual. The prevalence of MSCC on diagnosis of pancreatic cancer is only 0.02%, and cumulative incidence of MSCC in

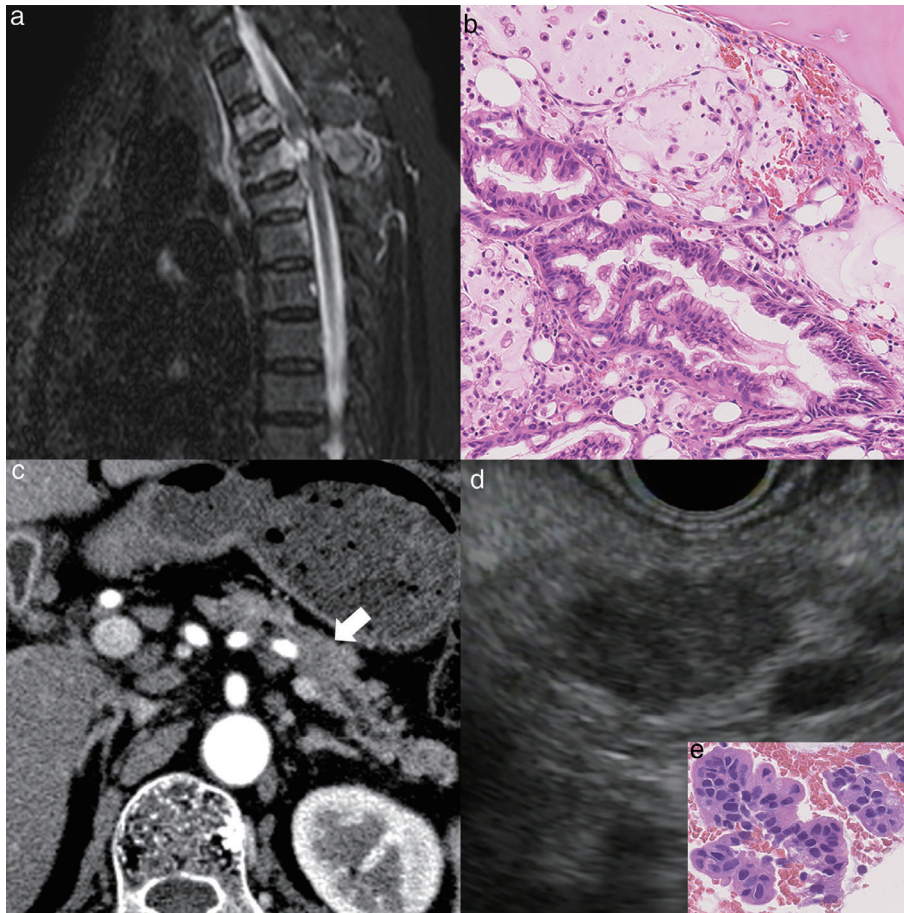


Figure 1 Short T1 inversion recovery (STIR) sequence in magnetic resonance imaging, showing tumors of upper thoracic spines (T2-4) compressing spinal cord (a). Histopathological examination of the thoracic spinal tumors, indicating atypical glands, which were diagnosed to be adenocarcinoma (b). Contrast-enhanced computed tomography showing a small, hypoattenuating area (arrow) of the pancreatic tail with the dilated main pancreatic duct (c). Endoscopic ultrasonography (EUS) demonstrating a well-defined heterogeneous hypoechoic mass with irregular margins in the pancreatic tail (d). The specimen obtained by EUS-guided fine-needle aspiration and biopsy: Pancreatic ductal adenocarcinoma consistent with the primary tumor (e).

pancreatic cancer has been reported to be 0.22%.³ Moreover, less than 1% of MSCC originates from pancreatic cancer.²

However, physicians should be aware that such a progressive and sometimes irreversible symptom can be an initial manifestation of pancreatic cancer on rare occasions.

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