Metastatic carcinoid tumour compressing the cauda equina

Sirs: We report a patient with a progressive syndrome of cauda equina compression due to an osteogenic metastasis from an intestinal carcinoid tumour.

A 64-year-old female presented with a one year history of low back pain irradiating to both legs for three months. Prolonged sitting caused numbness in both thighs. Six months before she had been examined for these complaints at another hospital, and radiographs of the lumbar spine were reported normal. She had a ten year history of abdominal pain and intermittent diarrhoea and two years previously had presented with acute intestinal obstruction. A small bowel carcinoid was removed at operation. There were multiple metastases to the mesentery and abdominal lymph nodes. Physical examination showed bilateral grade 4 quadriceps weakness; the knee and ankle jerks on the right side were reduced. Straight leg raising was normal on both sides but there was bilateral femoral nerve stretch pain. Cauda equina compression at the L3 level was presumed. Plain radiographs of the lumbar spine showed sclerosis of the body and the right pedicle of L3. Metrizamide myelography demonstrated a complete block at L3. CSF analysis including a smear of the sediment was unremarkable. At surgery a highly vascular tumour was found in the epidural space opposite L3. The tumour was separated and no carcinoma was found to arise from bone, but a biopsy of the vertebral arch and body demonstrated carcinoid tissue in the spongiosa. The lumbar spine was irradiated with 6000 rads. Signs and symptoms disappeared and the patient remained well for 12 months. Postoperatively she complained of periods of flushing which reacted well to methylxymil. She died 15 months later following multiple abdominal complications included intestinal obstructions.

Although carcinoid tumours were initially considered as non-infiltrating and non-metastasizing, subsequent case reports illustrated that carcinoid tumours may metastasise to the lymph nodes, and very rarely to the nervous system. To our knowledge only one well-documented case of caudal spinal cord compression has been published and no case of lumbar involvement producing cauda compression could be traced. When our patient presented with low back pain and inconstant radicular symptoms, the presence of degenerative bone disease or disc pathology was much more probable than metastatic carcinoid tumour. Plain radiographs of the spine six months previously were normal but at a later stage there were discrete abnormalities on plain radiographs of the lumbar spine. As osteoblastic metastases are recognised complications of malignant carcinoid tumours, further examinations were performed and showed a metastasis at L3. This seems a very rare complication of carcinoid tumour. A neurofibroma had also to be excluded, because the combination of carcinoid and von Recklinghausen's neurofibromatosis had been stressed in two previous reports.

In conclusion, the patient illustrates that in presence of persisting spinal pain, radiculopathy or myelopathy, a vertebral metastasis should be considered even when the primary tumour is of carcinoid origin. As in the case of other bone metastases a bone isotope scan has to be performed even when plain films of the spine are normal while also an immuno-assay technique with specific antibodies to serotonin may be a very sensitive method of carcinoid metastasis detection. These procedures may detect the lesion earlier, resulting in temporary pain relief by radiotherapy. Our patient remained pain free for one year.

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References