



“EXTRADURAL SPINAL CORD COMPRESSION” - AN UNUSUAL MASK OF A COMMON FOE

General Medicine

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ABSTRACT

Geriatric population often present to our outpatient departments with often vague complaints like chronic multiple joint pains, loss of weight, appetite and so on. But in rare instances they may actually be the harbingers of more serious pathologies rarely even malignancies inside. Hence the role of a thorough history and detailed meticulous clinical examination with special emphasis on general physical examination needs to be emphasized to look for subtle signs of malignancy. Also its wise to look for an etiological diagnosis in all the cases where permissible. We present one such interesting case.

KEYWORDS

Extradural Spinal Cord compression, Pancreatic malignancy

INTRODUCTION:

Chasing the etiological diagnosis is the most important aspect of clinical medicine. For this the role of a detailed relevant history and a thorough clinical examination can never be more strongly emphasized. Sometimes things which appear very simple like a knee joint pain in the elderly can be hiding a notorious culprit within. Hence never stop till the etiological diagnosis is confirmed. We present one such interesting case.

Malignancies are notoriously deceptive in their clinical presentation. Carcinoma of the Pancreas is the second most common gastrointestinal malignancy in the United States, the mortality rates associated with it still very high. The incidence of carcinoma of the pancreas in India is still low, 0.5-2.4 / 1,00,000 men and 0.2-1.8/1,00,000 women in India. Despite its low incidence, pancreatic cancers represent the fourth most common cause of cancer death in the United States. Most pancreatic cancer patients experience symptoms very late in the course of the disease. Hence the lack of early symptoms leads to delay in the diagnosis, such that less than 20% patients present with a resectable mass. Hence it is prudent to evaluate for these tumors of pancreas (in the routine workup for malignancies) specially in the geriatric population, who may present with rather uncommon symptoms like joint pains, even in the absence of classical signs and symptoms involving the pancreatic system.

CASE REPORT :

A 74 year old male patient, presented to the outpatient clinic with left sided predominant thigh and knee joint pain since 2 weeks. He had been constantly using pain killers for the same and had obtained some relief. But since the last 2 days prior to consultation he noticed weakness of the left lower limb, with no sensory loss; for which he was brought to our clinic. There was no history of bowel bladder involvement, back pain or radicular pain. Neither was there any fever, cough, loss of weight or loss of appetite. Past history was significant for a fact that the patient had been showing to a local practitioner for Hyperpigmentation of extremities for which he was treated with topical applications. He was a known Diabetic and Hypertensive since the last 20 years on treatment. There was no other significant history.

On clinical examination his vitals were stable and his general physical examination revealed a widely distributed Hyper-pigmented dry skin on the extremities and trunk and back suggestive of Acanthosis Nigricans. There was no evidence of lymphadenopathy, pallor, edema, icterus, clubbing. Body Mass Index (BMI) was normal. Central nervous system examination showed he was found to have a flaccid left lower limb with a power of 1/5 with mute plantar response on the left side. Sensory system examination was completely normal. His back showed the presence of a large swelling over the left Paraspinal region overlying the lumbar vertebrae. Other systems were Normal.

Hence a routine MRI scanning of the spine was performed which showed a huge osteophytic growth encroaching the body of the 2nd

Lumbar vertebrae as shown in the figure-1,2.



Figures-1(left), Figure-2(right) : Show a large osteophytic growth in the 2nd lumbar vertebra causing compression of the spinal cord

Initially lesion was suspected to be Neurofibroma versus malignant lesion, one either a primary or a metastatic lesion from a different site, an MRI guided biopsy of the same was taken. Later the search for the primary began.

The patients routine blood investigations like Complete Blood counts, Liver and renal function tests were all fairly normal except for a mildly elevated HbA1c level of 6.9%.

Then tumor markers were assayed which showed normal values of Beta-HCG : < 2.0 mIU/ml, P.S.A:3.98ng/ml (normal <4ng/ml), Ca-125:8.50 IU/ml (normal <30.2 IU/ml) , C.E.A: 0.52 IU/ml(normal <0.52 IU/ml).

The patient's biopsy report then showed the presence of a moderately differentiated metastatic adenocarcinoma as shown here.

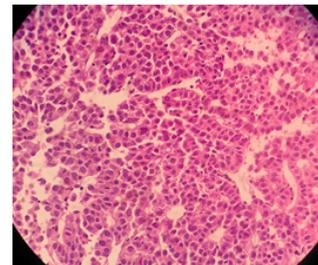


Figure-3 : Sections from the mass shows abortive tubular structures and trabeculae with pleomorphic hyperchromatic nuclei and eosinophilic cytoplasm.

Now once we knew the patient had a metastatic adenocarcinoma in the lumbar spine, the search for the primary continued. Earlier reports had showed most tumor markers were negative. But given the age, an occult malignancy should always make it to the list of differentials. Hence the patient underwent an Upper gastro-duodenoscopy, as well

as a colonoscopy which did not show any growths, masses, ulcers or strictures.

Finally the patient underwent a contrast CT scan of the abdomen which showed the presence of an ill-defined enhancing lesion in the head of the pancreas along with metastatic deposits in the V, VI lobes of the liver as shown in the figure-4 :

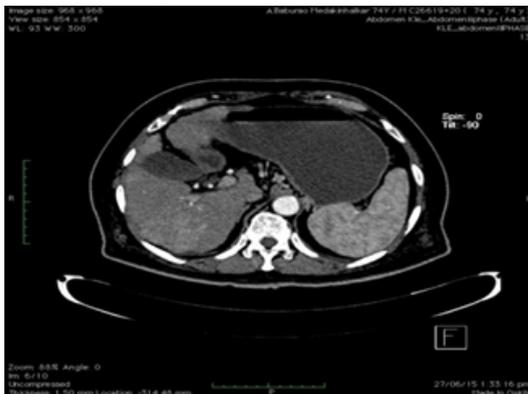


Figure-4 : Shows the CT-abdomen of the patient showing ill defined enhancing lesions in the head of the pancreas with metastases in V,VI lobes of the liver.

The chest CT was within normal limits with no evidence of any metastases.

The patient was thus diagnosed to have a Pancreatic Adenocarcinoma with metastases to the spine presenting as Left lower limb monoplegia.

The patient subsequently underwent palliative radiotherapy, as he refused for resection of tumor and any further treatment. On follow up it was found that the patient expired 2 months later after the diagnosis.

DISCUSSION:

Among the pancreatic malignancies the most common, pancreatic adenocarcinoma, accounts for about 85% of cases. Common symptoms are chronic abdominal pain, jaundice, loss of appetite and weight, constipation and diabetes. Pancreatic Adenocarcinomas usually spread first to the draining lymphatics and nodes, but later can and usually metastasize to the liver, peritoneal cavity, colon and sometimes even to the lungs.

Skeletal metastases from pancreatic cancer have thus far been considered an infrequent occurrence. There have been a few reports of skeletal metastases in pancreatic adenocarcinomas, first being reported from Russia in 1963. Although the true incidence of skeletal metastases in patients with pancreatic cancer is not known, it is felt to be between 5% to 20%. Survival from the time of diagnosis of skeletal metastases can be quite variable in this group of patients (range: 0.3-9 months). Interestingly, various studies show that the spine is the most common site of skeletal metastases from the pancreatic malignancy, but the problem is that at presentation both the primary and the secondaries in the spine present with backpain.

Spine involvement in the case of a pancreatic malignancy can occur in two ways. One is the direct extension of the primary tumor to involve the lumbar spine. Secondly in some cases the hematogenous route is also a possibility, where there is spread of the tumor cells via the venous plexuses. Review of literature also suggests various cytokines such as interleukin-6, vascular endothelial growth factor (VEGF), and parathyroid hormone-related protein (PTHrP) which exert a promotive effect on bone resorption and may play a pivotal role in the development of intra-osseous progression of pancreatic adenocarcinoma. Both osteolytic and osteoblastic lesions have been described, suggesting multiple mediators of bone metastases.

Our patient had none of the typical symptoms of either the primary nor of his secondaries in the spine. He presented with an extradural cord compression presenting as a monoplegia. The important clues lay in the general examination like the presence of Acanthosis Nigricans which was a harbinger of an occult malignancy. Hence no patient especially the elderly should undergo a thorough examination to find the etiological diagnosis.

CONCLUSIONS:

Patient was diagnosed as Left lower limb monoplegia secondary to metastatic adenocarcinoma of pancreas with Acanthosis Nigricans with Type 2 Diabetes Mellitus. Clinicians caring for these patients should be aware of this rare site of metastases, and they also should consider the pancreas as a possible primary site in patients who present initially with osteolytic bone deposits of unknown origin.

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