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Prostatic Adenocarcinoma Presenting As Hemiplegia – A Case Report

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Abstract: Prostate carcinoma presenting as hemiplegia is rare. A 56 year old male presented with sudden onset right hemiplegia and behavioural abnormality. He had left supraclavicular lymphadenopathy which was found to be from adenocarcinoma of Prostate. His focal neurological deficit was later diagnosed as caused by Cystic metastasis from Prostatic adenocarcinoma. This case report highlights a rare first presentation of Prostatic adenocarcinoma.
Keywords: Adenocarcinoma, Prostate, Cystic metastasis.

INTRODUCTION

Prostate cancer is the second most frequently diagnosed cancer in men (13.6% of total). It is the sixth leading cause of cancer death in men (6.1 % of total). It is primarily a disease of elderly men, with three quarter of cases affecting men aged above 65 years. Usually prostatic carcinoma metastasizes to pelvic lymph nodes, axial skeleton, lungs and liver. Cerebral metastases are rare. Cystic brain metastasis from prostate is even rarer especially without involving other organs. We report a case of a 56 year old male, who presented to us with cerebral cystic metastases from prostate.

CASE REPORT

A 56 year old male, chronic smoker and alcoholic presented to us with weakness of right upper and lower limb and altered behavior in the form of social indis inhibition and personality changes for 2 weeks. On examination, he was emaciated and had one hard, fixed, non tender supraclavicular lymph node of size 4x3 cm on the left side of root of neck (figure 1). CNS examination revealed normal speech. But he was disoriented in person, place and time. He had grade 3 power in right upper limb and grade 4 in right lower limb with spasticity and extensor plantar response on the right side. Abdominal examination revealed no organomegaly. Per rectal examination revealed grade II prostatomegaly with a hard area.

Investigations revealed polymorphonuclear leucocytosis, neutrophilia with toxic granules and shift to left. His liver and renal function was normal. Contrast enhanced CT of brain showed ring enhancing lesion with thick irregular walls of size 3.5 x 6.5 cm in left parietal lobe suggestive of cystic metastases with tentorial herniation (figure 2). Chest radiograph was normal. Ultrasonography of abdomen showed an enlarged prostate, heterogenous in nature with both hypoechoiec and hyperechoiec areas, with increased vascularity and low resistance. A possibility of carcinoma prostate was considered. Serum PSA was >100ng/ml. Bone Scan was normal. FNAC from the left supraclavicular lymph node was suggestive of metastasis from adenocarcinoma (figure 3). Contrast enhanced CT of abdomen and chest revealed hyper-enhancing lesion of size 11x10 mm in the peripheral zone of prostate with bladder base infiltration possibly malignant. Left common iliac and necrotic left supraclavicular adenopathy was also noted. There was no evidence of metastases to lung, liver or bone. Histopathology of the prostate gland revealed prostatic adenocarcinoma, but Gleason score could not be assessed. Thus our patient was diagnosed as having Metastatic Prostatic Adenocarcinoma with TNM stage T4N1M1c GX. Our patient was treated with Whole Brain Radiation Therapy, anti-edema medications and anti convulsants. Surgical removal of the metastatic lesion in brain or biopsy from the lesion was deferred in view of poor general condition.

Fig-1: Picture showing left supraclavicular lymph node (arrow)

Fig-2: CT brain image showing the cystic lesion in the left parietal lobe with mass effect

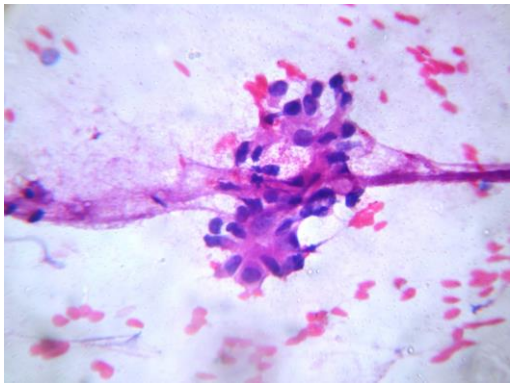

Fig-3: Picture showing the metastatic adenocarcinoma cells in Fine Needle Aspiration specimen of left supraclavicular lymph node

DISCUSSION

The reported incidence of brain metastases from prostatic carcinoma from autopsy studies is only 0.6% - 4.4%. The commonly involved sites are leptomeninges (67%), cerebrum (25%), and cerebellum (8%). The antemortem diagnosis of brain metastases from prostate is still rare and is estimated to be around 0.1% [1]. Our patient has presented with brain metastases and subsequent neurological deficits in the form of hemiplegia and altered behavior. Cerebral metastases as the first presentation of prostatic carcinoma are extremely rare [2]. Only 5 cases are reported till date.

Cystic cerebral metastasis usually occurs in metastatic carcinoma of lungs, thymus, breast, prostate and pancreas. On reviewing literature only two cases of cystic cerebral metastasis from prostatic adenocarcinoma has been described. This is the third case. We could not find any Indian case report.

Saeter *et al.;* reported that in 35 patients with non regional lymphatic spread from prostate cancer, the left supraclavicular fossa was the most common site of spread in 24 (69%) patients; 80% of the patients had elevated acid phosphatase, and 75% had abnormal Digital Rectal Examination (DRE) [3] Our patient also had left supraclavicular lymphadenopathy of 4x3 cm and an abnormal DRE.

Histologic types of carcinoma prostate like small cell carcinoma, cribriform and transitional cell carcinoma have greater likelihood of brain metastasis than adenocarcinoma. However because of the greater prevalence of adenocarcinoma the most common histologic type of brain metastasis encountered in prostatic carcinoma is adenocarcinoma. This is consistent with our case [4].

Metastases from prostatic adenocarcinoma occur in multistep or cascade fashion with bone and /or lungs involved first , followed by secondary seeding of tumour cells to other sites including the brain. Thus most patients with brain metastases will have widespread metastases elsewhere [5]. Now it has been postulated that metastases can occur directly to the brain through the paravertebral venous plexus, avoiding bone and the viscera suggesting this as a mechanism for solitary brain metastases [6]. In our patient also there was no evidence of metastasis to lungs, bones or liver. Brain parenchyma, left supraclavicular lymph node and left common ileac lymph node were sites of metastasis sparing bone and visceral organs. This pattern of involvement is also rare in prostatic carcinoma.

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