CASE REPORT

A RARE CASE OF COLORECTAL CARCINOMA WITH BONY METASTASES

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ABSTRACT

Colorectal cancer is one of the most common malignancies in the world. Bone metastasis is rare, and data are lacking. Here we report a case of colorectal carcinoma with bony metastasis.

Key words: *Bone metastases, Colorectal cancer, Long term survival.*

INTRODUCTION

Colorectal cancer is the third most common cancer as well and the third most common cause of cancer death in men and women respectively.[1] The majority of primary tumours were located at the recto-sigmoid portion of the colon.[2]

Skeletal metastasis in primary colorectal carcinoma is a rare event, when such an event occurs it is usually a late manifestation of the disease.[3] Isolated skeletal metastasis from primary colonic carcinoma is a more rare event with an incidence of 1.1% of all metastasis from colonic cancer.[3]

CASE REPORT

A 57year old woman diagnosed with colorectal cancer following a history of recurrent passage of loose stool and marked weight loss from late December 2013. The patient underwent exploration due to features of intestinal obstruction as an emergency where he had resection of the sigmoid colon as well as partial cystectomy because the cancer was adherent to the bladder and liver biopsy was positive for cancer. Preoperative computed tomography of the abdomen and pelvis (CT) with and without contrast revealed sigmoid colon mass likely representing colon cancer, numerous enhancing targetoid hepatic lesions compatible with metastatic disease. Pathology result showed a PT4a PN0 PM1a moderately differentiated adenocarcinoma of the sigmoid colon.

Magnetic resonance imaging was done in 2018 on account of severe back pain and weakness of the lower limbs, which revealed multiple osteoblastic lesions in the T10, T11, L2, L4, L5 and S1 with background spondylosis and osteoporotic changes.

Serological testing confirmed an elevated CEA of 758ng/ml. KRAS and BRAF mutation analysis was negative.

The patient was treated with adjuvant chemotherapy with 5FU, Leucovorin and Irinotecan (FOLFIRI). After 8 cycles of chemotherapy patient was asked to repeat CT scan, which revealed mass in the sigmoid colon, hydronephrosis in the left kidney, but there was excretion of dye. There was also a mass that seemed to be emanating from the left kidney that appears to be a complex cyst. There defects was seen in the liver, consistent with metastatic cancer.

The patient was then commenced on 2nd line adjuvant chemotherapy with oxaliplatin and bevacizumab in which she had 8 cycles. Patient also had palliative External beam Radiotherapy to the spine 30Gy in 10 fractions over 10 days and recommend Denusumab or Zometa (Zelodronic acid) in which she has not had due to financial constraint.

Patient was last seen 5th July 2019 on follow up visit.

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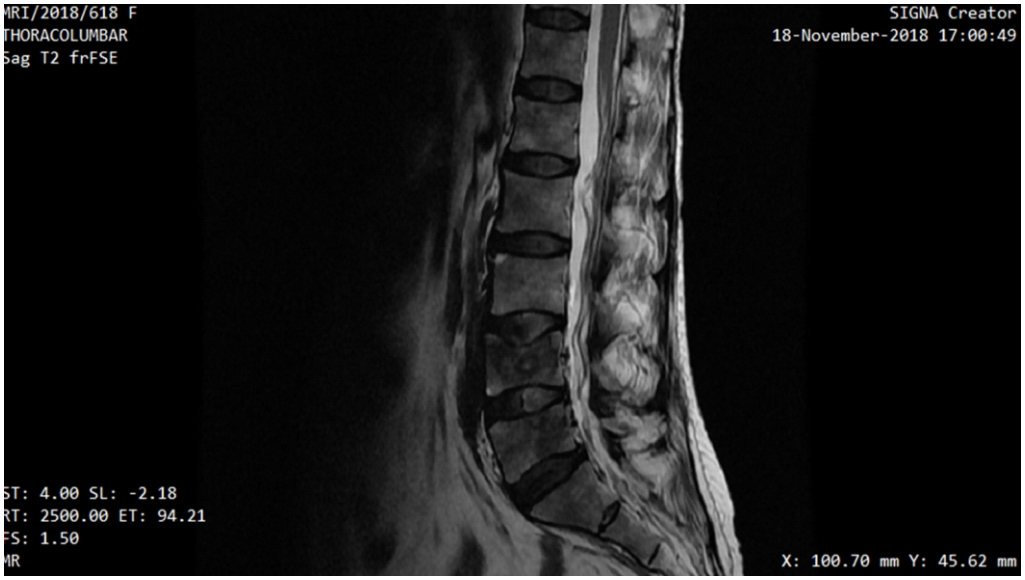
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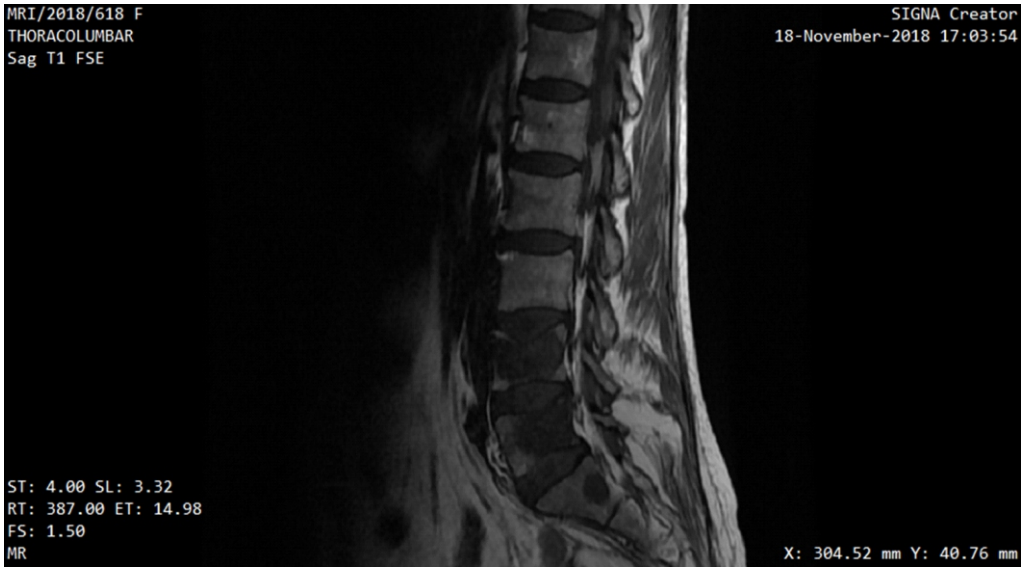
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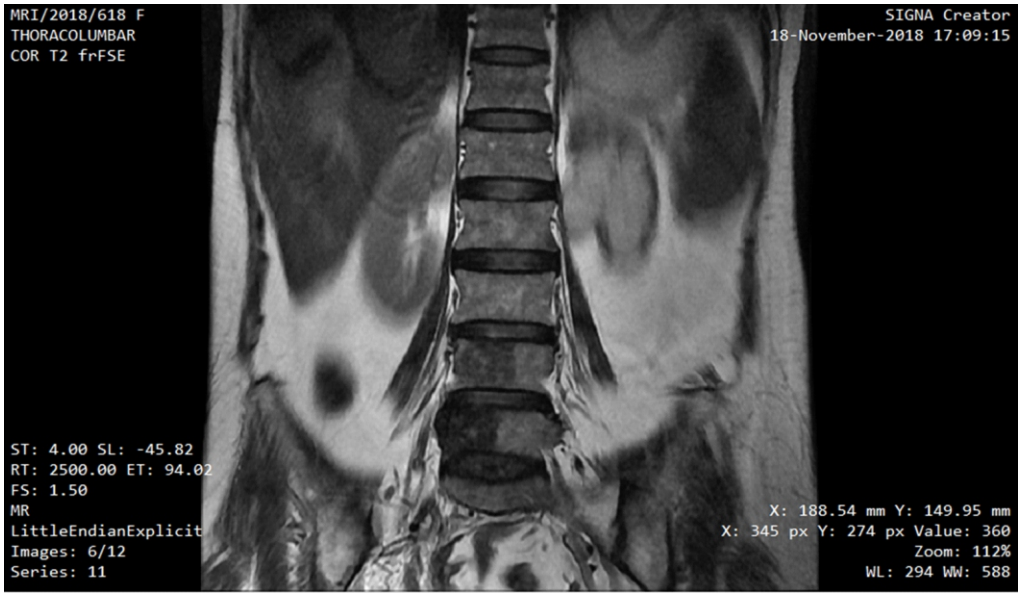
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DISCUSSION

Colorectal cancer is among the three most common cancers with an estimated 1.2 million new cases diagnosed worldwide per year,[4] Distant metastasis from colon cancer spread most frequently to the liver and the lung. Risk factors include positive lymph node and high-grade tumours.[3]

The incidence of bone metastasis is reported in the English literature to be up to 4.7% in clinical cases and up to 10.7% in autopsy cases.[5,6] However the characteristics of the primary cancers, as well as the pattern of bone metastasis remain unclear.[6] In the majority of cases they are associated with liver or lung metastasis.[5]

There is a difference in the frequency of bone metastasis between the colon and rectal cancer. As Masani et al has demonstrated in their autopsy series, rectum cancers are more frequently associated with bone metastasis than cancers from other portions of the large gut. Also comparing various histological types, signet-ring cell carcinoma shows a high incidence of bone metastasis.[2,6,7] Most patients with bone metastasis had pathologic T3/T4 disease at colorectal cancer diagnosis.[8] The spine was the most common site involved (65%) followed by hip/pelvis (34%) long bones (26%) and other sites (17%).[8]

The most likely route for skeletal seeding is through Batson's plexus, a valveless system of veins draining to the vertebral column, making it the most common site for skeletal metastasis.[2]

The most common presenting symptoms of skull metastasis is a visible localized swelling of the skull produced by the growing tumour that erodes the outer table.[6] Metastasis to bone gives rise to osteolysis or mixed osteolysis-osteoblastic appearance on radiography.[6] But for early detection bone scan is the most effective method.[6] Before the introduction of modern chemotherapy and targeted treatment options, bone metastasis was reported in 10-24% based on clinical and autopsy records of patients with advanced colorectal cancer.[8]

Patients with metastatic colorectal cancer are now typically treated with 5-fluorouracil and leucovorin and either oxaliplatin or irinotecan (FOLFOX or FOLFIRI) and the antivascular endothelial growth factor antibody bevacizumab or the anti-epidermal growth factor receptor antibodies cetuximab or panitumumab are added to these regimens when indicated.[9,10,11,12]

Survival after the onset of bone metastasis is very poor with a median survival of approximately 5 months and a 20% survival rate at 1 year.[2] Disease-free survival from the time of diagnosis to the onset of skeletal metastasis ranges from 10 to 5,309 days according to kanthan et al.[13] They also concluded that 38% of patients with bone-only VS 16% with bone and visceral metastasis were alive at 5 years follow up, although no statistical difference was found in the 10-year survival rate between the two groups[13]. With the newer treatment regimens, median survival of > 20 months has been reported for patients with advanced colorectal cancer.[11,12]

Common complications from bone metastasis in colorectal cancer patients are similar to those reported in patients with bone metastasis from other solid tumours, and the most commonly reported events included severe bone pain requiring palliative radiotherapy to the bone, pathological bone fracture, and spinal cord compression.[14]

CONCLUSIONS

The onset of osseous metastasis during colorectal cancer is not common. Although rare, they usually appear in the axial skeleton.

Herewith, we reported a case of moderately differentiated adenocarcinoma of the sigmoid colon with multiple bony metastases in which she had palliative chemotherapy and External beam radiotherapy and later was loss to follow up.

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