AN UNUSUAL CASE OF GASTRIC CARCINOMA PRESENTING WITH MULTIPLE BONE SECONDARIES
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Abstract: Carcinoma stomach can present with either gastrointestinal symptoms or with symptoms pertaining to its secondary deposits. Here is a case of a 40 year old male who presented with polyarthralgia, anaemia and non-specific abdominal symptoms, and diagnosed with multiple secondaries in bone, with primary lesion being undifferentiated adenocarcinoma stomach, with no evidence of other secondaries in liver, or lung.

Keyword: Carcinoma stomach- Undifferentiated Adenocarcinoma- Bone metastasis- Polyarthralgia

INTRODUCTION:
Bone marrow metastasis occurs in only 0-17% of cases of gastric carcinoma (1). We present an unusual case of carcinoma of stomach with metastasis to both axial and appendicular skeleton with no evidence of secondary deposits in liver, lung or peritoneum. The patient presented primarily with polyarthralgia and anaemia. Bone secondaries in carcinoma stomach signify stage IV disease for which palliative treatment is the only choice available.

CASE REPORT:
A 40yr old male, a sugarcane factory worker, presented to us with complaints of multiple joint pains involving Right shoulder, Left Hip over the past 4 months, with associated weakness of the limbs; dyspepsia for 3 months; swelling of legs for 2 months; and loss of weight for 2 months. There was no history of abdominal pain/vomiting/cough. Patient gave history of smoking tobacco (15 pack years). No other significant medical/family history. He was initially evaluated for suspected haematological/neurological/connective tissue disorder, at other hospitals before reporting to us. On examination, he was pale, ill nourished, without clubbing/lymphadenopathy.

Vitals were normal. His Abdominal, Respiratory, and Cardiovascular system examination were normal.

Neurological examination revealed mild proximal muscle weakness of 4/5 with B/L Plantar flexor and brisk reflexes. Musculoskeletal examination showed Joint tenderness and swelling of Right Shoulder and Elbow and Left Hip. No muscle tenderness noted. In this clinical setting, the patient was evaluated for anaemia, polyarthralgia and gastrointestinal symptoms.

INVESTIGATIONS:
RBC-3.2 Million/mm3 (3.8-5.8), Haemoglobin- 8mg/dl (11-15), PCV- 24%(34-44), ESR-80/150, Platelet count- 2.2 Lakhs/mm3. Peripheral smear showed Normocytic Hypochromic anaemia with poikilocytosis. No abnormal cells.

Other cell types were normal. Iron studies were normal. Blood sugar, urea, serum creatinine were normal. Serum Bilirubin and transaminase were normal.

Serum Alkaline phosphatase- 843 IU/L (upto 129)
Creatinine Phosphokinase- 757 IU/L (39-308)
Lactate Dehydrogenase- 869 IU/L (85-227)
Ultrasound Abdomen- Normal study.
ANA Profile - Negative

X- Ray showed multiple ill-defined lytic lesions with ill-defined zone of transition involving right proximal humerus, bilateral iliac bones. Moth eaten appearance of visualized bilateral distal femur and proximal tibia is seen

Figure 1: Digital X Ray R shoulder showing diffuse ill-defined osteolytic lesions involving proximal humerus, and lateral third of clavicle, and acromion.

Figure 2: Digital X Ray of Pelvic bones showing osteolytic lesions involving the iliac bones
Figure 3 (a): XRAY BOTH KNEES AP VIEW

Figure 3(b): XRAY KNEE LATERAL VIEW

Fig 3: shows moth eaten appearance of distal femur, and proximal tibia & fibula. Bone Marrow revealed marrow metastasis. An Oesophago Gastro Duodenoscopy revealed proliferative growth from incisura to antrum. Biops taken from the growth showed neoplastic tissue suggestive of poorly differentiated adenocarcinoma with few cells showing signet ring configuration.

CT showed growth in antrum of stomach extending till pylorus with no evidence of metastasis in liver or lungs. The patient was planned for palliative care and referred to medical oncology where he was lost to follow up.

DISCUSSION:
This case presents to us, a unique perspective- extensive bone secondaries in a case of carcinoma stomach in the absence of other sites of dissemination. The patient had initial symptoms exclusive of multiple joint pains and weakness of limbs secondary to pain, which in a young person, can mislead us to think in favour of other inflammatory conditions as had occurred in this case, where connective tissue diseases, haematological malignancies and inflammatory myopathies were part of the differentials. The elevated ESR acts as a confounding factor. The major pointer in this case was the multiple lytic lesions and corroborative bone marrow biopsy report that led to further evaluation and identification of stomach as the primary site. Bone secondaries usually originate in Breast, Prostate and Lung. Metastasis to bone/bone marrow is relatively uncommon in gastric carcinoma (2), although it accounts for most cases of diffuse bone metastasis & DIC from solid tumours (3). The spread of solid tumours to the bone was reported as early as 1939 by Jarchow (4), Mechanism of secondary deposits in bone from stomach are unclear; however, a few hypothesis are postulated. Review of literature suggests that the rich supply of blood capillaries in the gastric mucosa may contribute to the early spread of cancer to the bone (5). It is also suggested that an alternate non-portal route through the vertebral venous plexus may be the route of bone metastasis from gastric carcinoma (6). Cases have been reported of bone secondaries from carcinoma stomach without a macroscopic appearance either by scopy or imaging. Bone scintigraphy is useful in diagnosis other occult sites of bone metastasis (7). A review of the literature suggested that schirrous carcinomas and poorly differentiated Adenocarcinoma, histological and macroscopically Borrmam types III and IV, were the predominant types of gastric cancer which resulted in bone metastases(8) For Bone secondaries, sequential Methotrexate and 5- FU have been reported to show some results (9).

CONCLUSION:
In patients with bone secondaries, gastric carcinoma may be a primary site after all the other sites. A high degree of suspicion is necessary on the part of the physician to diagnose such cases.

REFERENCES:


