

An Unusual Case Of Gastric Carcinoma Presenting With Only Bone Metastasis As The Site Of Dissemination

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Citation

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Abstract

A 60-year-old man with gastric carcinoma presented bone metastasis. A bone scintigram showed multiple secondaries in the entire axial skeleton. A biopsy from the bone marrow suggested marrow metastasis with osteosclerosis. Histological examinations of an endoscopic biopsy from the stomach revealed well differentiated adenocarcinoma of the stomach. There was no evidence of secondaries in the liver, peritoneal cavity, or lung. Bone marrow studies ruled out disseminated carcinomatosis of the bone marrow, microangiopathic hemolytic anemia, and disseminated intravascular coagulopathy. If a bone metastasis is found as the initial sign, physicians should keep in mind that the primary lesion might be in the stomach.

INTRODUCTION

Bone metastasis occurs in only 0-17% of cases of gastric carcinoma (1). We present an unusual case of carcinoma of the stomach with metastasis to the entire axial skeleton and no evidence of spread either to the liver or lung.

CASE REPORT

A 60-year-old man was admitted with history of anemia, loss of weight and loss of appetite. Investigations showed Hb of 7 g/dl, WBC count 3500/ μ l, platelets 80,000/ μ l, alkaline phosphatase (ALP) 2425 U/l and prothrombin time 10% of normal. Hepatic and renal functions were normal. A peripheral smear suggested normocytic normochromic anemia with atypical cells. A bone marrow biopsy was done revealing evidence of metastasis from the gastrointestinal tract. An ultrasound of the abdomen was done which showed concentric thickening of the antral wall of 8mm thickness. There was no evidence of ascites, liver secondaries, or pelvic deposits. A CT scan of abdomen and thorax showed no organomegaly, no evidence of lymphadenopathy and absence of lung secondaries. An endoscopy was done and no growth was found. Multiple biopsies from the antrum and body were taken. The histopathology suggested a well differentiated adenocarcinoma of the stomach. Bone scintigraphy revealed abnormal uptake in the entire axial skeleton. Investigations showed WBC count 3500/ μ l, platelets 80,000/ μ l, alkaline phosphatase (ALP) 2425 U/l and prothrombin time 10% of normal. Hepatic and renal functions were normal. The patient was planned for a

gastrectomy followed by chemotherapy but discharged against medical advice.

DISCUSSION

The present case exhibits an unusual pathological behavior of gastric carcinoma: extensive bone metastasis in the absence of other sites of dissemination. Metastasis to the bone and/or bone marrow is relatively rare with gastric carcinoma. The spread of solid tumors to the bone was reported as early as 1939 by Jarchow (2). The exact mechanism of spread to the bone in gastric carcinoma is not exactly known, given the few reports available (1). 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 (3). 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 (4). A review of the literature suggested that scirrhous carcinomas and poorly differentiated Adenocarcinoma, histological and macroscopically Borrmann types III and IV, were the predominant types of gastric cancer which resulted in bone metastases (5). In patients presenting with a bone secondary or secondaries carcinoma stomach may be a primary site after all the other sites.

CORRESPONDENCE TO

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References

1. Mohandas MK, Swaroop SV, Krishnamurthy S, Desai CD, Dhir V, Pradhan AS, et al. Unusual bone metastasis as the initial symptom of gastric cancer - a report of four cases. *Indian J Cancer* 1993; 30:146-50
2. Jarchow S. Diffusely infiltrative carcinoma: a hitherto undescribed correlation of several varieties of tumor metastasis. *Arch Pathol* 1936; 22:674-96.
3. Lehnert T, Erlandson RA, DeCosse JJ. Lymph and blood capillaries of the human gastric mucosa. A morphologic basis for metastasis in early gastric carcinoma. *Gastroenterology* 1985; 89:939-50.
4. Sagara K, Fujiyama S, Kin F, Sato T. *Jpn J Clin Oncol.* 1985 Mar; 15(1):133-4
5. Carstens SA, Resnick D. Diffuse sclerotic skeletal metastasis as an initial feature of gastric carcinoma. *Arch Intern Med.* 1980; 140:1666-8.

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