Jarcho's Syndrome: Bone Marrow Infiltrates from a Gastric Malignancy

Badareesh Lakshminarayana¹ · Satya Vijay Chigurupati¹ · Sampath P. Kumar¹

Received: 21 December 2016 / Accepted: 31 March 2017 / Published online: 7 April 2017
© Association of Surgeons of India 2017

Abstract Bone and bone marrow metastasis is extremely rare in adenocarcinoma particularly from the stomach. We present a case of gastric carcinoma primarily manifesting as anemia and pancytopenia. On evaluation, he was found to have bone marrow secondaries from a gastric primary tumor. Though such metastasis is rare, patients with refractory anemia must be evaluated to search for solid organ malignancy like the stomach.

Keywords Adenocarcinoma · Anemia · Pancytopenia · Metastasis

Summary

A 55-year-old male presented with fullness in the abdomen and backache since 20 days. Examination was grossly unremarkable except for pallor. On evaluation,

he was found to be severely anemic with an Hb of 6 g% and leucoerythroblastic picture in peripheral picture. Upper gastro intestinal scopy showed an ulcerative growth in the antrum [Fig. 1d]; the biopsy of which was reported as diffuse infiltrating adenocarcinoma [Fig. 1c]. The bone marrow aspirate and biopsy showed marrow infiltration with adenocarcinoma metastasis [Fig. 1b]. A CECT abdomen and pelvis done to look for locoregional spread showed metastasis in the vertebrae and iliac bones [Fig. 1a] without metastasis in the liver. As the prognosis was poor, patient opted out of any treatment.

Discussion

Jarcho, Saul, an American physician first described 18 cases of diffuse carcinomatosis of bone marrow, 12 of which were from stomach [1], which was referred as Jarcho's syndrome. Though the exact mechanism is unknown, it is suggested that the enormous blood in gastric mucosal capillaries or alternatively non-portal route through vertebral venous plexus was the cause of early spread [2]. They present with bone pain (43.6%), active bleeding (20.6%), dyspnea (12.8%), abdominal pain (5.1%), and general weakness (5.1%). When compared with supportive care, chemotherapy for these gastric cancer has survival benefits [3].

✉ Badareesh Lakshminarayana
drbadareesh.l@gmail.com

¹ Department of Surgery, Kasturba Medical College,
Manipal, Karnataka, India

Fig. 1 **a** Coronal view of the CECT showing vertebral metastasis. **b** Bone marrow aspiration showing metastatic cells. **c** Histopathology of gastric ulcer biopsy showing adenocarcinoma cells infiltrating the muscle. **d** Endoscopy showing gastric ulcer in the antrum

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

References

1. Jarcho S (1936) Diffusely infiltrative carcinoma. A hitherto undescribed correlation of several varieties of tumor metastasis. *Arch Pathol* 22:674
2. Lehnert T, Erlandson RA, DeCosse JJ et al (1985) Lymph and blood capillaries of the gastric mucosa: a morphological basis for metastasis in early gastric carcinoma. *Gastroenterol* 89:939–950
3. Glimelius B, Ekstrom K, Hoffman K et al (1997) Randomized comparison between chemotherapy plus best supportive care with best supportive care in advanced gastric cancer. *Ann Oncol* 8:163–168