

Autoimmune thrombocytopenia associated with carcinoma of the stomach

M Mathew, A Joshi, A Kurien

Citation

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Abstract

Autoimmune thrombocytopenia is rarely associated with gastric adenocarcinoma. It is usually associated with lymphoid malignancies and has been attributed to the formation of anti-platelet antibodies. We document a case in a young male with gastric adenocarcinoma which spontaneously resolved following splenectomy.

INTRODUCTION

Thrombocytopenia in gastric adenocarcinoma has been attributed to a wide variety of causes such as tumor infiltration of the marrow, marrow hypoplasia secondary to chemotherapeutic agents, consumption coagulopathy and rarely autoimmune-mediated platelet destruction¹. These antibodies are usually of the IgG and IgM types and have been documented in patients with carcinomas. Therapy includes treatment with steroids, splenectomy or a brief course of chemotherapy².

CLINICAL HISTORY

A 34-year-old male presented with four episodes of hematemesis and melena of 1 month duration. Endoscopy revealed an ulcerated growth in the greater curvature of the stomach. A clinical diagnosis of carcinoma of the stomach, stage II T2N1M0, was made. He was not taking any medications.

INVESTIGATIONS

The results of the investigations showed: Hemoglobin 15.8g%, total white blood count 7000/cmm, platelet count 16,000/ μ l, ANA negative and positive anti-platelet antibody titres. Peripheral smear showed normocytic normochromic red blood cells with thrombocytopenia. Bone marrow revealed normal erythroid and myeloid precursors. Megakaryocytic hyperplasia with few immature forms was observed. No evidence of marrow infiltration was noted. Iliac crest biopsy showed bony trabeculae enclosing normocellular marrow spaces with normal erythroid and myeloid elements and mild megakaryocytic hyperplasia.

A total gastrectomy with esophagojejunostomy was performed along with splenectomy in view of the reduced platelet count.

PATHOLOGICAL FINDINGS

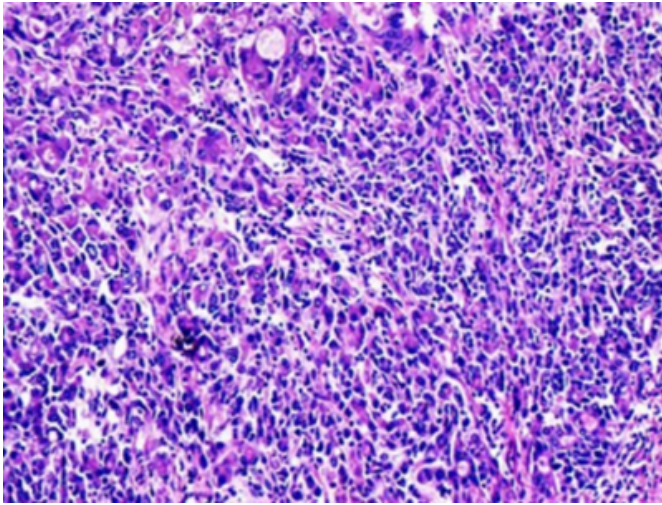
The gastrectomy specimen weighed 805g and measured 19x8cm. Cut section showed an ulcerated growth in the greater curvature measuring 3cm in diameter with heaped margins, extending into the serosa. Nine lymphnodes isolated appeared grossly normal. The spleen weighed 153g, measured 10x8x2cm and appeared grossly normal.

Sections from the gastric growth showed fundal mucosa overlying a tumor composed of few well-formed acini lined by malignant glandular epithelium. The majority of the tumor cells were composed of sheets of large round cells with hyperchromatic nuclei and eosinophilic cytoplasm. Many signet-ring cells were seen (Fig. 1). Submucosal and serosal lymphatics showed tumor emboli. The tumor was seen involving the serosa. Sections from the spleen showed normal parenchyma.

Post gastrectomy and splenectomy, the platelet count improved to 348,000/ μ l.

Figure 1

Fig. 1: Tumor composed of sheets of malignant cells arranged focally in a glandular pattern H&E (200)



DISCUSSION

Autoimmune thrombocytopenia occasionally occurs in patients with solid tumors but is commonly associated with

lymphoid malignancies such as chronic lymphocytic leukemia and B-cell lymphoma³. It may rarely be a presenting feature of an underlying malignancy⁴. Its association with gastric carcinomas is a rarity and only an occasional case has been documented in the literature¹. We report an additional case wherein the thrombocytopenia did not require medical management and improved with splenectomy alone.

References

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Author Information

Mary Mathew, MD

Department of Pathology, Kasturba Medical College

Anurag Joshi, MD

Department of Pathology, Kasturba Medical College

Annamma Kurien, MD

Department of Pathology, Kasturba Medical College