An unusual presentation of stomach cancer

INTRODUCTION

Stomach cancer is the second most common cause of cancer-related death in the world, and it remains difficult to cure primarily because most patients present with advanced disease. The American Cancer Society estimates that in 2007 there were an estimated one million new cases, (nearly 70% of them in developing countries) and about 800,000 deaths worldwide. Cancer is a hypercoagulable state. Venous thrombosis is more common than arterial thrombosis. Portal vein thrombosis (PVT) predominantly occurs in the cancers of liver and pancreas, but can occur in other abdominal cancers. We here described a patient who presented as PVT secondary to stomach cancer.

CASE REPORT

A 57-year-old lady presented to our department with 2 days history of severe crampy upper abdominal pain. There was no history of vomiting, jaundice, fever, hematemesis or blood with stools. Examination revealed a cachectic female with normal hemodynamics, mild pallor, no icterus, Sister Mary nodules around umbilicus and mild to moderately tender upper abdomen with no ascites. Her hemogram revealed mild microcytic anemia. Rests of the baseline investigations were normal. An ultrasound was performed which revealed an echogenic thrombus involving main portal vein and right and left branches and superior mesenteric vein. Computed tomography (CT) portovenogram confirmed these findings [Figures 1 and 2]. Besides, CT showed thickening of the antrum and pylorus [Figure 3]. Endoscopic examination revealed a gastric growth involving pylorus and antrum; biopsy was adenocarcinoma. The patient was placed on low-molecular-weight heparin. In view of her advanced disease (Sister Mary Nodules), the patient was offered palliative chemotherapy; however, treatment was declined by the patient.

DISCUSSION

Thrombosis was identified as a complication of cancer by Trousseau in 1865, and the combination of the two conditions is still often called Trousseau's syndrome.[1] Arterial and, more commonly, venous thrombosis is a frequent complication of cancer and represents the second most frequent cause of death in cancer patients.[2]

PVT is known to occur in many cancers, more commonly so in hepatocellular carcinoma (HCC) and pancreatic cancer.[1,8] Other cancers known to cause PVT rarely are cholangiocarcinoma and bladder cancer. PVT can occur in gastric cancer. However, presentation of stomach cancer as PVT has not been reported in the literature. Our patient presented with symptoms suggestive of PVT and imaging confirmed that. However, on evaluation she was found to have cancer of the stomach.
The detection by Doppler sonography of pulsatile flow in portal vein thrombi is a moderately sensitive but highly specific sign for the diagnosis of malignant portal vein thrombus in cirrhosis. Similarly, diffusion-weighted MRI imaging enables discrimination between bland and neoplastic portal vein thrombi in HCC. Similar studies however have not been done in PVT due to gastric cancers. There are two types of malignant thrombi in cancer stomach, one arising indirectly from metastasis to liver and the other directly from the primary lesion.

Treatment of PVT in the setting of malignancy is anticoagulants. Vannelli et al. used LMWH in a patient of stomach cancer and PVT pre-op and post-op and oral anticoagulants at discharge (INR 2-3). Regression of the thrombosis with low-molecular-weight heparin was confirmed by CT. The patient survived more than 2 years. They recommend that patients with gastric cancer complicated by benign partial PVT could gain particular benefit from adjuvant anticoagulant treatment, so that the surgical approach can be limited to gastric cancer. Tanaka et al. reported direct extirpation of thrombus by direct opening of the PV of four patients of PVT with cancer Stomach in addition to resection of primary lesion with improvement in survival. Because PV tumor thrombus may, possibly, determine the patient's length of survival, in addition to causing cancer progression, surgical thrombectomy, combined with resection of the primary cancer and liver metastasis should be considered for prolongation of survival, if all macroscopic lesions can be controlled and if the tumor thrombus is a synchronous and recent one.

CONCLUSION

Portal vein thrombosis in stomach cancer is rare and can be benign or malignant. Pre-op differentiation between malignant and benign involvement is difficult. Treatment is anticoagulation. Patients can receive pre and post-op anticoagulation and direct removal of thrombus during surgery.

REFERENCES


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