IJBC 2017; 9(4): 125-127

Iranian Journal of Blood & Cancer

Journal Home Page: www.ijbc.ir

Case Report

Carcinosarcoma of Stomach with Chondroblastic Differentiation: A Rare Case and Review of Literature

Mazaher Ramezani[1], Maryam Mirzaie[1], Masoud Sadeghi[2*]

[1]Molecular Pathology Research Center, Emam Reza Hospital, Kermanshah University of Medical Sciences, Kermanshah, Iran
[2]Medical Biology Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran

ARTICLE INFO

Article History:
Received: 25.06.2017
Accepted: 29.08.2017

Keywords:
Carcinosarcoma
Stomach
Malignancy
Incidence
Pathology

**Corresponding author:*
Masoud Sadeghi,
Medical Biology Research Center,
Kermanshah University of Medical Sciences, Kermanshah, Iran
Email: sadeghi_mbrc@yahoo.com

ABSTRACT

Gastric carcinosarcoma is a rare cancer of adults with poor prognosis compared with other gastric malignancies. To the best of our knowledge, the present report is the first case of gastric carcinosarcoma with chondroblastic differentiation in Iran. A 63-year-old man with epigastric pain was admitted to the surgery department. Abdominopelvic CT-scan showed a hypodense mass lesion in distal gastric lesser curvature measuring 5.7 x 4.0 cm with decreased enhancement after contrast injection. Microscopic examination revealed coexistence of carcinomatous and sarcomatous components, presence of vascular and perineural invasion and involvement of the adjacent lymph nodes. This is a report of a rare case of gastric carcinosarcoma with chondroblastic differentiation.

Please cite this article as: Ramezani M, Mirzaie M, Sadeghi M. Carcinosarcoma of Stomach with Chondroblastic Differentiation: A Rare Case and Review of Literature. IJBC 2017; 9(4): 125-127.

Introduction

Carcinosarcoma of the stomach is a rare malignant biphasic neoplasm which both carcinomatous and sarcomatous components exist in the tumor.[1] The prognosis of gastric carcinosarcoma is poor compared with other gastric carcinomas.[2] Histological identification of the simultaneous carcinomatous and sarcomatous components as well as the immunohistochemical (IHC) analysis is critical for diagnosis of this neoplasm.[3] Herein, we report the first case of gastric carcinosarcoma with chondroblastic differentiation in Iran.

Case Report

A 63-year-old man with intermittent epigastric pain of one year duration was admitted to the surgery department of Emam Reza Hospital, Kermanshah, Iran. The pain was more severe after meals without associated nausea or vomiting. His past medical history was positive for cerebrovascular accident a few days ago. He was a heavy smoker for twenty years who had ceased smoking since 20 years ago. A complete imaging study with abdominopelvic scanning showed a hypodense mass lesion in distal gastric lesser curvature measuring 5.7×4.0 cm with decreased enhancement after contrast injection along with increased urinary bladder wall thickness and a diverticulum. The brain CT scan showed a hypodensity in posterior right parieto-occipital lobe with white matter involvement suggestive of subacute ischemic focus. The patient underwent total gastrectomy, jejunal reconstruction and splenic and hepatic lymphadenectomy for staging of the patient. Macroscopically, the specimen was measured 15×6×4 cm, contained an attached omentum measuring up to 10 cm. The cut section of the specimen revealed a gray mass in stomach measuring up to 10 cm (Figure 1). Hepatic and splenic retroperitoneal lymph nodes were submitted in different containers.

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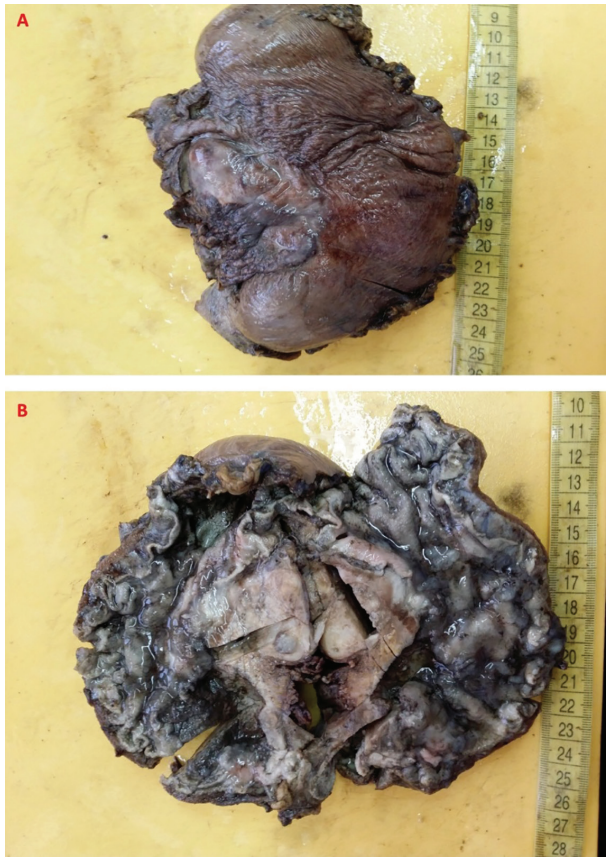

Figure 1: Gross specimen of stomach with tumor; (A) Outer aspect, (B) Inner aspect

Microscopic examination revealed carcinosarcoma (sarcomatoid carcinoma) components extending to serosa with equal carcinomatous (adenocarcinoma, moderately differentiated) and sarcomatous (Chondrosarcoma, high grade) components (Figure 2). There was also evidence of vascular and perineural invasion with lymph node involvement in 3 lymph nodes (Figure 3). Surgical margins were free of tumor. An informed consent was obtained from the patient to report the case.

Discussion

This is a report of a rare case of carcinosarcoma of the stomach in an Iranian man with intermittent epigastric pain. Fujiie and colleagus reported 60 cases of gastric carcinosarcoma from Japan.[4] There are also reports on 28 patients with carcinomasarcoma of the stomach.[5-7] Fujii has reported cases of gastric carcinosarcoma with rhabdomyosarcomatous differentiation.[4] According to the literature, both sexes are reported equally. In addition, most patients have demonstrated lymph node involvement at diagnosis.[1,3,8-11] A number of studies have shown that patients with carcinosarcoma had a history of epigastric pain about 2-12 months before diagnosis.[1,3,6,9,12]

Carcinosarcoma is a rare malignancy with both sarcomatous and carcinomatous components together that the carcinomatous component usually consists of intestinal type adenocarcinoma and the sarcomatous component may present myoblastic, chondroblastic, lipoid or osteoblastic differentiation.[2,13] This case indicated adenocarcinoma in carcinomatous component

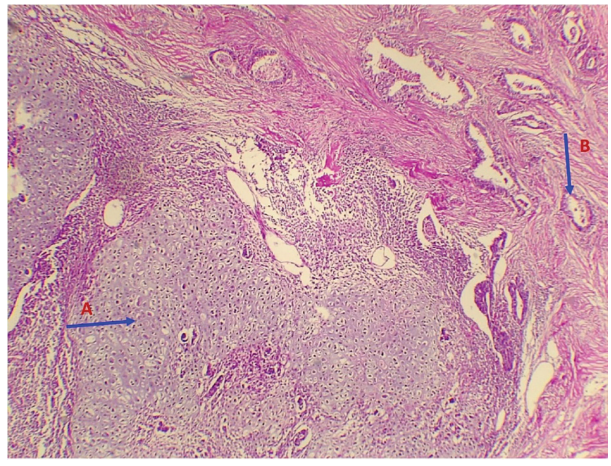

Figure 2: Carcinosarcoma of stomach (Hematoxyline and Eosin stain, ×40); see arrows: (A) Sarcomatous component (B) Carcinomatous component

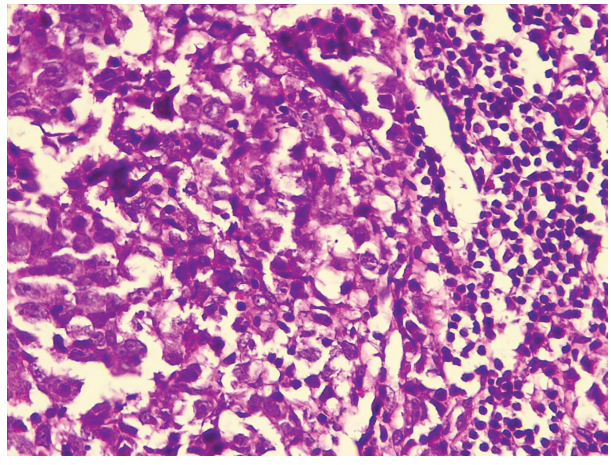

Figure 3: Lymph node involvement by gastric carcinosarcoma (Hematoxyline and Eosin stain, ×100)

and chondrosarcoma in its sarcomatous component. It should be noted that due to the coexistence of the two components in the tumor, one should be careful not to miss the exact diagnosis. In one report, the primary diagnosis which was made through biopsy of the tumor was changed from poorly differentiated adenocarcinoma to carcinosarcoma with rhabdomyosacomatous differentiation after resection of the tumor.[14] This shows the importance of adequate sampling for definitive pathological diagnosis. It is noteworthy that cases of carcinosarcoma of esophagus has also been reported.[15] Tsuneyama and co-workers reported a case of gastric carcinosarcoma with rhabdomyosarcomatous and neuroendocrinal differentiation with expression of chromogranin in IHC, presenting that the origin of cell types in this tumor may be more variable.[16]

Conclusion

This report described a rare case of gastric carcinosarcoma with chondroblastic differentiation. The most cases of gastric carcinosarcoma had a history of epigastric pain and displayed lymph node involvement. Adequate sampling of the specimen should be performed not to miss the particular diagnosis in large tumors.

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Conflict of Interest: None declared.

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