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Case Report

Adenosquamous carcinoma of stomach: A rare entity - Case report

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Abstract

Primary gastric adenosquamous carcinomas are rare and constitute less than 0.5% of all gastric malignancies. They are common in males and seen in sixth decade of life. These tumors are composed of both adenocarcinoma and squamous cell carcinoma in varied proportions. Here we have presented such a rare case in a 47 years old male patient who presented with complaints of abdominal pain and bleeding. Routine investigations were normal except for mild anemia. Upper gastrointestinal endoscopy revealed ulcerartive lesion in the pyloric antrum. Histopathological examination confirmed the diagnosis of adenosquamous carcinoma. They are aggressive tumors and have worse prognosis compared to adenocarcinomas hence, follow up is necessary.

Key words

Adenosquamous, Carcinoma, Gastric, Hematemesis, Endoscopy, Histopathology.

Introduction

Adenocarcinomas are the common primary malignancies of the stomach. Primary adenosquamous carcinoma occurring in stomach is rare. The incidence of these tumors ranges from 0.04 to 0.7% [1]. Usually these tumors involve the antrum and consist of varying proportions of adenocarcinoma and squamous cell carcinomas [1]. They are common in males with male to female ratio of 4: 1 [1, 2]. Its peak incidence is in sixth decade of life. Clinical and endoscopic findings are similar to the intestinal type adenocarcinoma hence differentiation is difficult [2]. Diagnosis is by histopathological examination by the presence of both adenocarcinoma and squamous cell carcinoma. They are aggressive tumors and the prognosis is poor.

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Case report

A 47 years old male patient came to our hospital with complaints of abdominal pain and hematemesis. He had similar complaints in the past. Other past history was not significant. On examination, there was mild pallor and tenderness in the epigastric region. Routine blood investigations revealed mild anemia. Leucocyte and differential counts were within normal range. Other tests were normal. Patient was advised upper gastrointestinal endoscopy. On endoscopy, there was a ulcerated lesion measuring 1 x 0.8 cm in the antral region. Biposy was taken from the edge of the lesion and sent for histopathological examination (HPE).

On microscopy, biopsy revealed well defined areas composed of both adenocarcinoma and squamous cell carcinoma with gradual transition hence, diagnosis of adenosquamous carcinoma was given. **(Photo – 1, Photo – 2, Photo – 3, Photo – 4)**

Photo – 1: Photomicrograph showing low power view of the polypoidal growth.

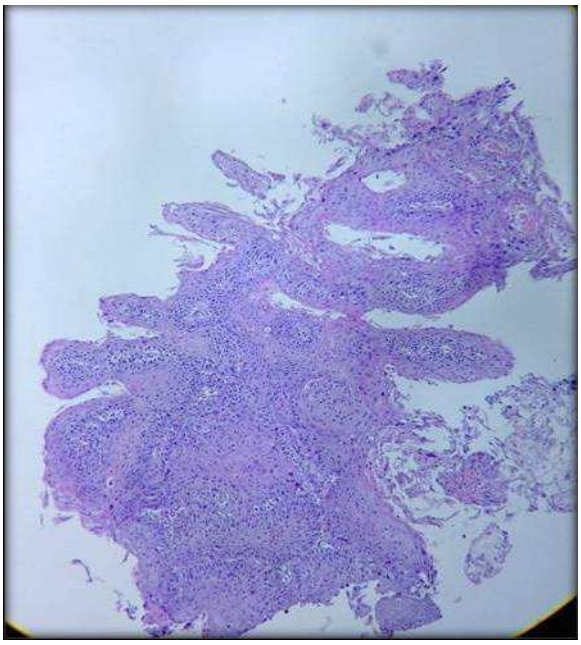

Photo – 2: Photomicrograph showing adenosquamous differentiation of the tumor with tiny keratinous pearls and intracellular keratin.

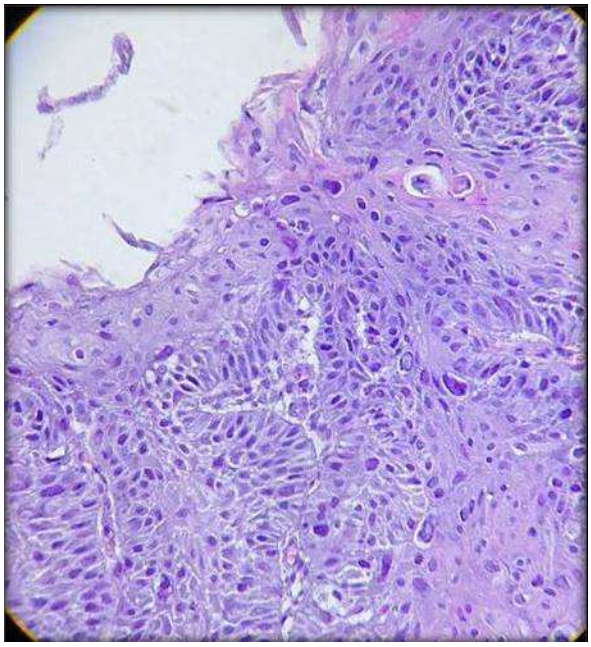

Photo – 3: Photomicrograph showing adenosquamous differentiation of the tumor with tiny keratinous pearls and intracellular keratin.

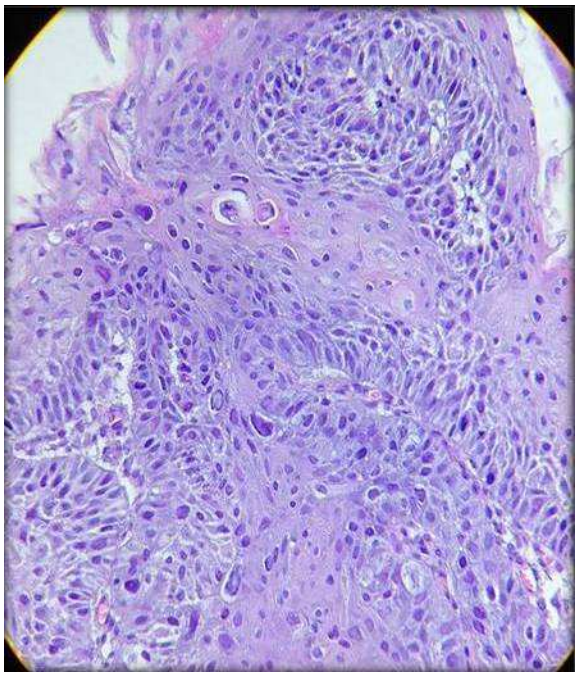

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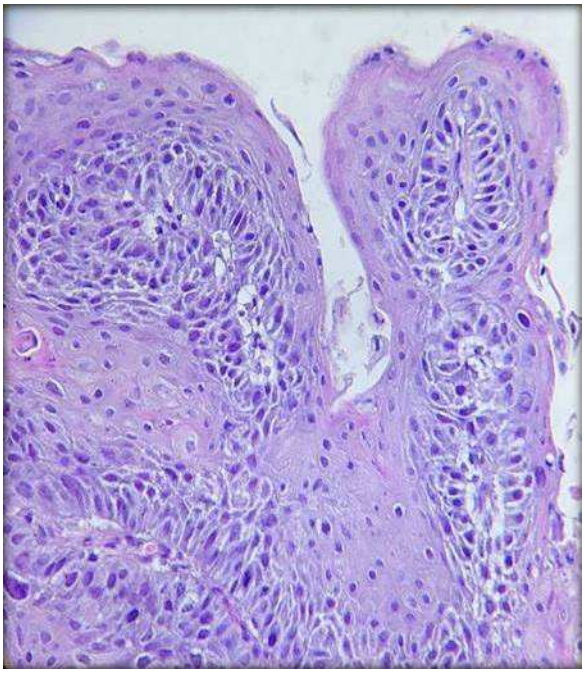
Photo – 4: Photomicrograph showing adenoid differentiation in the center with round cells and squamous differentiation at the periphery with polygonal type of cells.



Discussion

Primary adenosquamous carcinoma of the stomach is very rare, the incidence being less than 0.5% of all stomach malignancies [3, 4]. These tumors are composed of both adenocarcinoma and squamous cell carcinoma with gradual transformation of one into the other. For the diagnosis of a true adenosquamous carcinoma, it is necessary to confirm the presence of a both pattern carcinoma outside the cardia, without esophageal involvement and without adenosquamous carcinoma in other organs. Besides this, it is also necessary for the squamous component to be present in over 25% of the tumor mass [4]. They are common in the antral region with mean age of 60 years and predominance in males. In our case, the lesion was located in antrum in male patient, but at younger age.

Clinical manifestation of the patients with primary adenosquamous carcinoma of the stomach is similar with patients with conventional gastric adenocarcinoma hence distinction from one another is difficult based on these features [2]. A long history of smoking and alcohol abuse considered as risk factor in some patients. Patients with primary adenosquamous carcinoma of the stomach frequently present with advanced stage disease with or without metastases or involvement of other organs. Upper gastrointestinal (GI) endoscopy is useful as a preoperative investigation but it cannot differentiate conventional adenocarcinoma from adenosquamous carcinoma. Definitive diagnosis is possible only by the histopathological examination of the tissue.

The differential diagnosis includes poor differentiated adenocarcinoma, gastric adenocarcinoma, and intestinal type, with squamous differentiation, collision tumors, pure squamous gastric carcinoma, mucoepidermoid carcinoma, and metastatic tumors [5]. Focal squamous differentiation in the intestinal-type adenocarcinoma is relatively common. Therefore, to call it as adenosquamous carcinoma, squamous component should be composed of more than 25% of the tumour tissue. They differentiate from collision tumors by gradual transition from adenoid component to squamous component.

The histogenesis of adenosquamous carcinoma is not clear, although there are several hypotheses: Squamous differentiation of an adenocarcinoma, Malignant transformation of metaplastic non-neoplastic squamous cells or ectopic squamous epithelium, Differentiation of multipotential undifferentiated cancer cells toward both squamous and glandular cells, and Collision of concurrent adenocarcinoma and squamous cell carcinoma [4, 5, 6, 7].

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Adenosquamous carcinomas follow a very aggressive clinical course with metastasis in the other abdominal organs like liver, gallbladder, lymph nodes, and peritoneum. Metastatic lesions show mainly adenocarcinomatous component hence, it concludes that its biological behavior determined by the adenocarcinoma component, which has important prognostic implication.

Radical surgical excision is the only option for localized disease. For advanced stage disease, surgery plus adjuvant radiotherapy and/or chemotherapy appears to achieve a better outcome than surgery alone. They are aggressive tumors with worse prognosis when compared to adenocarcinoma [4, 6, 7]. The mean survival after surgery is very poor.

Conclusion

Primary adenosquamous carcinoma of stomach is rare entity and should be kept in differential diagnosis of carcinomas of stomach. Clinical signs and symptoms are similar to conventional adenocarcinomas hence, diagnosis is difficult. They are diagnosed by the histological examination of the tissue. Treatment consist mainly surgery, followed by chemo or radiotherapy in advanced cases. They are aggressive tumors with worse prognosis than adenocarcinomas.

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