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Letter to Editor

Primary squamous cell carcinoma of stomach: A rare case report

Dear Editor,

Primary squamous cell carcinoma (SCC) of the stomach is an extremely rare malignancy with an incidence of 0.04-0.07%.[1] Herein, we report a case of primary SCC of stomach in a 42-year-old male presenting with a gastric lump.

A 42-year-old man, presented with pain abdomen, vomiting, and constipation for 3 weeks. On her abdomen examination, there was a visible lump in the epigastric region measuring (4 × 4) cm moving with respiration. Patient was a chronic smoker and a known case of peptic ulcer disease on medication for the last 2 years.

Computed tomography (CT) abdomen revealed asymmetrical circumferential thickening involving the antropyloric region of the stomach measuring 1.6 cm and causing luminal narrowing. There were multiple small perigastric, peripancreatic, and celiac lymph nodes with largest one measuring 1 cm. Gastroduodenoscopy showed a large ulcer in the antral area of the stomach. Clinical and radiological findings were suggestive of carcinoma, distal end of stomach.

The patient underwent laparotomy and partial gastrectomy was performed. Gross examination of the resected specimen revealed an ulceronodular growth measuring 4 × 3 cm at the pyloric end [Figure 1]. Cut-section of the growth was gray white extending up to the serosa. Nineteen peripyloric lymph nodes were dissected out from the specimen.

Microscopic examination of sections from growth showed tumor epithelial cells arranged in sheets, clusters, and nests with prominent squamous differentiation extending up to the serosa. The cells were large, polyhedral with hyperchromatic nucleus, eosinophilic cytoplasm with some showing intracytoplasmic keratinization. Squamous pearls and intercellular bridges were evident [Figure 2]. Some areas showed acantholysis and pseudoglandular arrangement of cells. There was no evidence of metastasis in the lymph nodes dissected out. The immunohistochemical profile of tumor cells showed CK5/6+, CK8+, CK10+, CK19+, and CK14+. However, CK7 and CD20 were negative.

The diagnostic criteria for pure SCC, as defined by Parks[2] are: (1) Tumor must not be located in the cardia; (2) the tumor must not extend into the esophagus; and (3) there must be no evidence of SCC in any other organ.[3] In the case reported above, the growth was present at the pyloric end of the stomach with no evidence of extension into the esophagus or presence of SCC in any other organ.

Four histopathological diagnostic criteria for diagnosis of SCC have been established by Boswell and Hewig:[1] (i) Keratinized cell masses forming keratin pearls, (ii) mosaic cell arrangement, (iii) intercellular bridges, and (iv) high concentration of sulfydryl and/or disulfide groups, indicating the presence of keratin or prekeratin.

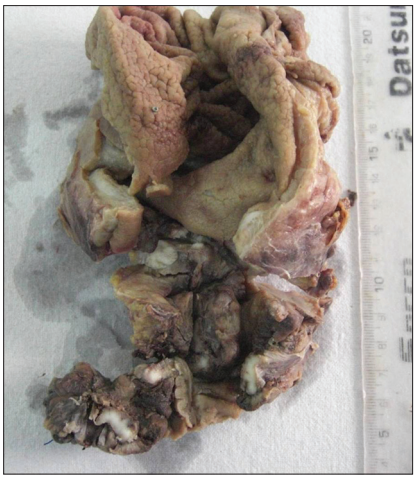

Figure 1: Gross specimen revealing ulceronodular growth at the pyloric end

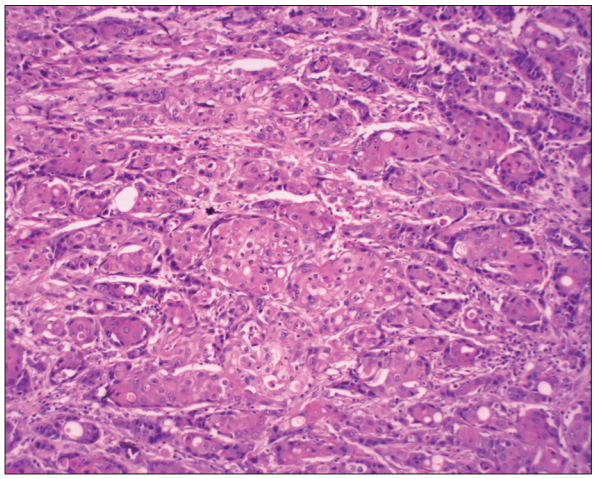

Figure 2: Nests of tumor epithelial cells with intracytoplasmic keratinization and intercellular bridges (H and E, ×100)

The origin of gastric carcinoma in the stomach is not clear and has been subject to speculation. Several theories regarding the pathogenesis have been suggested and summarized by Straus *et al.*,[3] as: (i) Presence of totipotent cell in the gastric mucosa; these cells have also been referred as basal cell by several authors. (ii) The presence of ectopic squamous cell nests in the mucosa and (iii) squamous metaplasia of the nonneoplastic glandular epithelium. Observations of metaplasia in the human stomach have been correlated with chronic inflammation. (iv) Squamous metaplasia or squamous differentiation in a preexisting glandular carcinoma and (v) SCC arising from the endothelium of the gastric vessels.

Mori *et al.*,[4] purposed the hypothesis that neoplastic multipotent first turn into adenocarcinoma, followed by the occurrence of squamous metaplasia which then turn into SCC.

SCC is an aggressive neoplasm as it metastasizes to the lymph nodes and the liver. The prognosis of gastric SCC

is probably less favorable than that of adenocarcinoma due to its higher frequency of lymphovascular invasion.[5] Chemotherapy combined with surgery improves the prognosis. The overall survival rates of the patient is from 7 months to 8 years.[6] Available data show that primary gastric SCCs are aggressive tumors due to higher incidence of lymphovascular and serosal invasion which are responsible for poor prognosis.

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