

## Acute Duodenal Ulcer Perforation with Carcinoma Stomach

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### Abstract

A 62 year old female who presented with features of acute duodenal perforation and associated carcinoma stomach (Ca-Stomach) is reported. Upper gastrointestinal endoscopy, biopsy and barium meal showed an adenocarcinoma of cardia and proximal 1/3rd of stomach. Such an association of pathology is not reported earlier in the literature.

### Key Words

Peptic ulcer, Carcinoma stomach, Duodenal ulcer, Upper Gastrointestinal bleed.

### Introduction

Duodenal ulcer perforation usually occurs in patients who have past history of acid dyspepsia or following intake of non-steroidal anti-inflammatory drugs (NSAID). Some patients of duodenal ulcer may present with associated bleeding from ulcer site. Duodenal ulcer and gastric ulcer may occur concomitantly but their association with Ca-stomach is not yet reported in the medical literature to the best of our knowledge.

### Case Report

A 62 year old female patient presented with symptoms of sudden onset of epigastric pain radiating to back and then whole of abdomen and nausea without vomiting of 24 hours duration. The patient had features of acid

dyspepsia for last 15 days for which she took antacids. There was no history of intake of any ulcerogenic drugs or acid dyspepsia in past. Patient had good appetite and there was no history of hematemesis/melena.

Examination of patient revealed no pallor, pulse and blood pressure were within normal limits. Abdomen was distended with rigidity and guarding all over. Free fluid was present and bowel sounds were sluggish. On per rectal examination, there was no blood in stools.

Laboratory work up was normal except mild rise in hematocrit values. Plain X-ray abdomen showed free gas under the right dome of diaphragm & there was free fluid in the peritoneal cavity (Fig.1).

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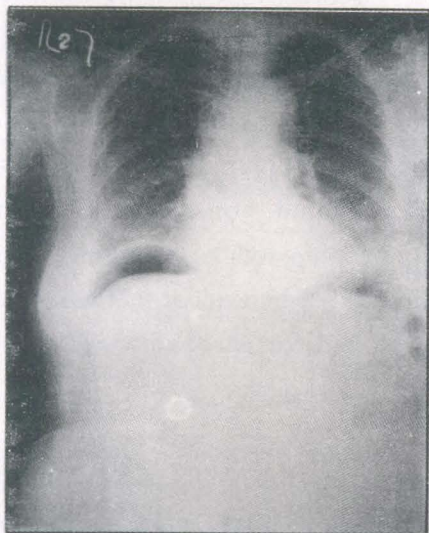


Fig. 1. Plain X-ray abdomen showing features of pneumoperitoneum and free fluid in peritoneal cavity.

Patient was resuscitated with nasogastric aspiration, intravenous fluids and antibiotics. An exploratory laparotomy was done on presumptive diagnosis of duodenal perforation. Findings at the surgery were a 0.5-cm perforation in the first part of duodenum on the anterior wall without any evidence of scarring. There was approximately 1.5 liters of bile stained fluid in the peritoneal cavity. Perforation was closed after freshening its edges, which were sent for histopathology. Thorough peritoneal toilet was done and duodenum closed after keeping bilateral flank drains.

On 4th post operative day, patient had normal bowel sounds and she passed normal colored stools on 5th postoperative day. Nasogastric tube was removed and patient started with oral liquids. However, she started vomiting within 12 hours of resumption of orals, with coffee ground vomitus. Nasogastric tube was reinserted and 1.5 liters of blood stained fluid was removed which cleared after lavage with normal saline. Patient had mild hemorrhagic aspirate for 72 hours and then settled.

Upper GI Endoscopy performed on 9th post operative

day revealed a large growth starting from cardioesophageal junction to upper 1/3rd of body of stomach without obstructing the cardia. A generous biopsy of growth was taken which turned out to be adenocarcinoma. Surgical biopsy of duodenal ulcer edges revealed acute non-specific inflammatory changes. The findings of barium meal study performed later on, were consistent with the findings of upper G.I. endoscopy. However, there was no gastric outlet obstruction (Fig2). The patient was advised gastric resection, but she refused it and did not turn up for follow-up.



Fig. 2. Barium meal study showing a large growth occupying proximal 1/3rd of stomach including cardia in the same patient.

### Discussion

Perforation, hemorrhage, malignancy and features of obstruction may complicate peptic ulcer. Free perforation is more common in duodenal ulcers as compared to gastric ulcers. Approximately 6% of duodenal ulcer may perforate and 5 to 10% of these patients may not have prior recognizable ulcer symptoms (1). However, it has been seen that this percentage may be higher in elderly patients and has been reported as high as 28.3% of cases (2). It has been further seen that hemorrhage may occur



in 50% of duodenal ulcers and 40% of these may have recurrent bleed (3). Mostly patients with G.I. bleed have either a history of prior ulcer dyspepsia or intake of non-steroidal anti-inflammatory drugs (NSAID). In 2 to 5% of cases, perforation and hemorrhage from ulcer may occur simultaneously (1). Postoperatively, after simple closure of duodenal ulcer perforation, the G.I. bleeding may occur because of hemorrhage from suture line, associated gastric ulcer, gastric erosions or concomitant kissing duodenal ulcer (4). There is clinical possibility of bleeding from associated malignancy, however this has not been reported previously.

It is a well established fact that a duodenal ulcer is associated with high acid output, whereas, patients with gastric ulcer either have a low or normal gastric acid output (5). Furthermore, patients having gastric carcinoma are mostly having hypochlorhydria/achlorhydria depending upon the area of parietal cell mass destroyed by the malignant pathology (3).

In our patient who had a acute duodenal perforation without prior history of ulcer symptoms/intake of

ulcerogenic drugs, the cause of perforation seems to be spontaneous. Keeping in view the large tumor of stomach, we believe that this finding of duodenal perforation was incidental as biopsy from ulcer edges has revealed non-specific inflammatory changes. Furthermore, we like to suggest that any elderly patient who has a peptic ulcer and associated bleed, should be looked for an occult associated gastric malignancy.

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