

# Double Gastric and Duodenal Perforations at The Fousseyni Daou Hospital in Kayes in One Case

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## Abstract

## Original Research Article

We report the observation of a patient presenting with acute generalized peritonitis. Emergency surgery found a double perforation, one on the stomach and the other on the duodenum. We performed a suture revival of the perforations plus a gastro-entero-anastomosis, then washed and drained the cavity. We discuss the diagnostic and therapeutic features of this rare condition.

**Keywords:** Peritonitis, double perforation, gastro-duodeno suture, gastro-entero-anastomosis.

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## INTRODUCTION

Gastric and duodenal perforation peritonitis are complications of peptic ulcer disease and constitute surgical emergencies whose prognosis depends on early management.

**Objective:** Our aim was to describe the clinical and therapeutic aspect of our patient and to review the literature.

**Methodology:** We drew up a file, performed an ultrasound scan of the abdomen, an unprepared abdomen and an emergency blood test.

**Anamnesis:** This is a 56-year-old male patient with no surgical history who was referred by a peripheral physician for occlusive syndrome.

Admitted to the department on 10-04-2023 the onset of the disease dated back to 4 days marked by a very intense stab-like pain of the epigastrium, aggravated by eating, without any lulling factor, which secondarily spread to the entire abdomen, accompanied by early post prandial vomiting, unquantified fever, a cessation of matter and gas.

He had a history of epigastralgia dating back several years without adequate treatment. Karnovski's index was 70%, conjunctiva pink, dry mouth with loaded tongue, blood pressure 12/08 cm Hg, pulse 95 beats/minute, respiratory rate 18 cycles/minute.

**On inspection:** the abdomen was not involved in breathing, there was no arching, no collateral venous circulation and no laparotomy scar. On palpation: generalized abdominal pain with more marked contracture of the epigastrium, positive umbilical call.

**On auscultation:** hydroaeric sounds were abolished, pulmonary auscultation was normal. On percussion, the prehepatic dullness had disappeared, and there was a hypogastric abdominal dullness.

On rectal examination, the rectal ampulla was bulging, with a positive Douglas cry. We concluded that peritonitis was probably due to gastric perforation. Complementary examinations:

Frontal upright PSA with diaphragmatic cupolas: images of pneumoperitoneum on right and left, with absence of gastric air sac.



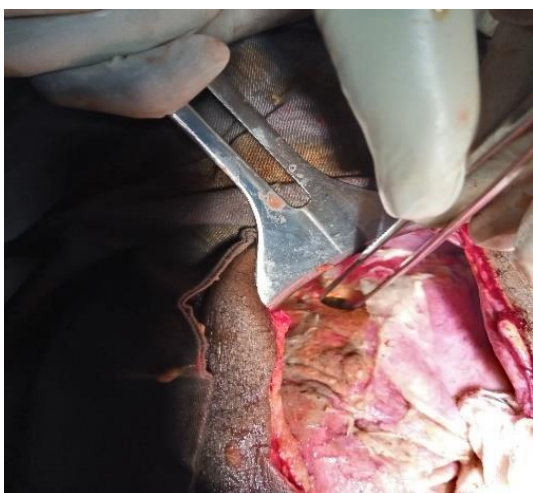
**Figure 1: PSA: presence of pneumoperitoneum**

Blood count, blood glucose and creatinine levels were normal. Ultrasound examination revealed a large intraperitoneal effusion.

We performed a median supraumbilical laparotomy. On opening, we aspirated approximately 3 liters of gastric fluid mixed with food debris. Exploration revealed an antral perforation of approximately 1 cm, associated with bulbar perforation of around 0.5 cm.

We proceeded to suture the perforations and perform a trans-mesocolic gastroentero-anastomosis, abundant lavage, drainage and parietal closure.

At D3, the nasogastric tube was removed and the patient was given a liquid diet. At D7, the patient was discharged. The patient was discharged without complications.



**Fig 2: Gastric perforation hole indicated by dissecting forceps**



**Figure 3: Duodenal perforation hole indicated by dissection forceps**

## COMMENTS

Gastroduodenal perforations are frequent in surgical settings and in developing countries, mainly as a complication of peptic ulcer disease and self-medication with non-steroidal anti-inflammatory drugs. The association of gastric and duodenal perforation is rare in the literature and in our own practice. This is a case of acute abdomen, the pain of which is very violent, given the virulent nature of the chemical liquid spilt in large quantities, which causes a kind of burn on the elements of the abdominal cavity.

The diagnosis of a double perforation is made intraoperatively, as the presence of pneumoperitoneum does not allow us to say that it is a double perforation.

The surgical technique adopted was a suture repair of the perforations, followed by gastro-entero-anastomosis. This technique enabled us to avoid gastric stasis by facilitating emptying, and to avoid postoperative fistulas, since the two sutures were very close to each other, which would create inflammatory zones and delay gastric emptying.

The postoperative course was straightforward, and the patient was discharged on day 7.

## CONCLUSION

Associated gastric and duodenal perforations are rare, and the outcome of management is best when they are sutured and then gastro-entero-anastomosed.

## REFERENCES

- Galtier, B. (2006). Peritonitis: signs and diagnosis. Larousse Médical Dictionnaire Larousse Paris.
- Domart, A., & Bourneuf, J. (1976). Petit Larousse de la médecine, Dictionnaire N 6145, 580.

- Rauws, E. A. J., & Tytgat, G. N. J. (1990). Cure of duodenal ulcer associated with eradication of *Helicobacter pylori*. *The Lancet*, 335(8700), 1233-1235.
- Chua, C. L., Jeyaraj, P. R., & Low, C. H. (1992). Relative risks of complications in giant and nongiant gastric ulcers. *The American journal of surgery*, 164(2), 94-98.
- Boey, J., Wong, J., & Ong, G. B. (1982). A prospective study of operative risk factors in perforated duodenal ulcers. *Annals of surgery*, 195(3), 265-269.
- Coulibaly, A. (1978). Hospital intern Peptic ulcers in the surgical setting. "Etude rétrospective de 469 cas recensés au Centre Hospitalier Universitaire de Treichville" [Thèse de médecine] Abidjan 7.
- Sanogo, Z. Z., Camara, M., Doumbia, M. M., Soumaré, L., Koumaré, S., Keita, S., Goita, A. K., Ouattara, M. A., Togo, S., Yéna, S., & Sangaré, D. (2012). Digestive perforations at CHU du point G. *Article -Mali Médical*, 27(1).
- Coulibali, I. (2004). Gastro-duodenal ulcer perforations at Gabriel Touré Hospital Thèse médecine Mali.
- Diaby, H. B. (2013). Peritonitis due to peptic ulcer perforation at CHU Gabriel Touré Thèse médecine Mali.
- Dembélé, B. T., Traoré, A., Togo, A., Kanté, L., Diakité, I., & Diallo, G. (2013). Peritonitis due to perforation of gastric cancer at Gabriel Touré University Hospital. *Mali Médical Tome*, 28(2), 17-19.