Case	(459) Intestinal obstruction and previous fundoplication: a possible lethal combination.
Authors	M. Pérez Benítez, C. Montes Durán, C. Borrega Harinero, A. Luna Morales, E. García Gámez, V. De Lara Bendahán.
Centre	Hospital Universitario De Puerto Real.

CASE PRESENTATION

We report the case of a 70-year-old woman with a previous fundoplication and an acute pancreatitis episode in 2017 that suffers an intestinal obstruction. A dilatation of the proximal intestine and the gastric chamber was caused by a complicated supraumbilical hernia.

A difficulty to evacuate the gastric content caused by the fundoplication could have caused a gastric dilation and a possible wall necrosis resulting on its perforation.

In the CT images it was possible to identify a disruption of the stomach on its body's wall. Important pneumoperitoneum, a high quantity of free peritoneal liquid and severe subcutaneous emphysema were also found among other findings without clinical significance in this case.

The clinical state of the patient made it impossible to perform a repairing surgery, resulting in the patient's death a few minutes after the CT was performed. No postmortem examination was made to determine the real cause of the gastric perforation, but no history of peptic ulcer was reported; and an upper digestive endoscopy performed in 2017 (during the pancreatitis episode) showed no signs of gastric ulcers that could have conditioned the perforation.

DISCUSSION

When important gastroesophageal reflux's symptoms take place a fundoplication is performed. Important surgery changes are made in the inferior esophageal sphincter and the stomach to avoid the gastric content going backwards to the esophagus; and usually successful clinical results are obtained.

Between the complications of this surgery and due to all the anatomical changes produced we can find a difficulty when trying to empty the stomach by vomiting.

This thus, facilitates a susceptibility to suffer gastric dilations. It has also been demonstrated that some histologic changes can take place in the stomach (its rigidity and fibrosis increase causing a diminution of its elasticity).

All this changes together increase the risk of ischemic and latter necrosis of the gastric wall, facilitating the appearance of gastric perforations.

CONCLUSION

In the case we report no autopsy was performed; but the lack of clinical antecedents and the normal findings in the previous upper digestive endoscopy suggest a gastric necrosis

as the cause of the perforation. This necrosis could be in relation with the antecedent of fundoplication as some similar cases has been reported.

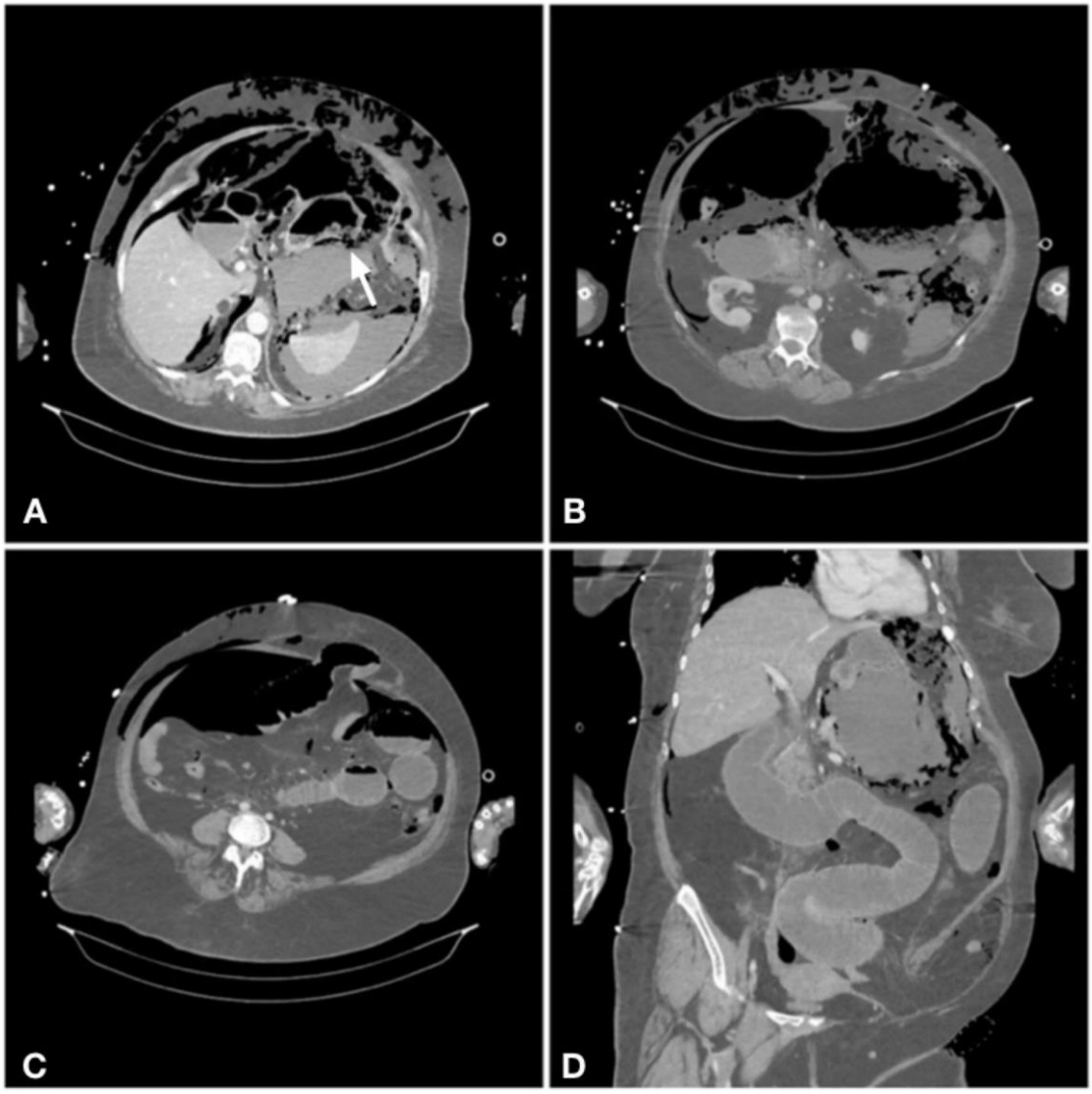

Figure 1: CT scan findings. **A**. Axial CT image of the upper abdomen shows a white arrow signalising the perforation point in the stomach's wall. **B**. Axial CT image showing the important pneumoperitoneum and subcutaneous emphysema. **C and D**. Axial and coronal images showing the complicated supraumbilical hernia with a bowell loop collapsed (**C**) and the intestinal dilation conditioned (**D**).

BIBLIOGRAPHY

- Barker JA, Burnett H, Carlson GL. Gastric necrosis complicating acute gastric dilatation after Nissen fundoplication. BMJ Case Rep 2011. 2011:1-4.

- Cloyd JM, Moskovitz A, Stevenson J. Acute gastric dilation as a late complication following laparoscopic Nissen fundoplication. Dig Dis Sci 2015; 60: 32-34.

- Powell J, Payne J, Meyer CL, Moncla PR. Gastric necrosis associated with acute gastric dilatation and small bowel obstruction. Gynecol. Oncol. 2003;90: 200-203.

- Salinas J, Georgiev T, González-Sánchez JA, López-Ruiz E, Rodríguez-Montes JA. Gastric necrosis: A late complication of nissen fundoplication. World J Gastrointest Surg 2014; 6(9): 183-186