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Letters to the Editor

First severe complication described after Longo hemorrhoidopexy

Key words: Longo hemorrhoidopexy. Pneumoretroperitoneum. Pneumoperitoneum Pneumediastinum. Pneumothorax. Subcutaneous emphysema. Conservative treatment.

Dear Editor,

Hemorrhoidopexy Longo is a circular staple, used for mucosal hemorrhoidal prolapse, with less postoperative pain, hospital stay and complication rate compared to the classical hemorrhoidectomy (1). However, dehiscences with peritonitis have been described in 0.5% of cases (2), persistent proctalgy in 10% (3), as well as temporary incontinence, skin tags, anal fissures, rectal hematomas, and hemorrhoidal thrombosis (4). The recurrence rate is 5.1% (5).

Case report

We report the second case described of pneumoperitoneum, pneumoretroperitoneo, pneumomediastinum, and pneumopericardium after hemorrhoidopexy Longo (6), but the first in which pneumothorax and subcutaneous emphysema were also present.

A 36-year-old woman, was operated for grade III hemorrhoids using the Longo hemorroidopexy technique. After 48 hours, she suffered chest pain that radiated to the neck, dysphonia, and crackling sound in the neck. The blood tests showed: 14,400 leukocytes (97.2% neutrophils, 2% lymphocytes); 336,000 platelets; fibrinogen, 458 mg/dL; and C reactive protein, 11.7 mg/L. Chest radiography revealed subcutaneous emphysema in the neck, pneumomediastinum and pneumoperitoneum. Thoraco-abdominal computerized tomography (CT) demonstrated massive pneumomediastinum, pneumoperitoneum and pneumoretroperitoneum, perirectal air, as well as postoperative changes in rectum. There were no signs of dehiscence or inflammation.

Although the patient was hemodynamically stable, because of these CT findings, the patient was admitted to the Intensive Care Unit and treated empirically with imipenem, vancomycin, and ceftazidime. The patient remained stable with no abdominal pain or perianal cellulitis, with repeated blood test showing: 0.5 lactate and procalcitonin < 0.05 ng/mL, without leukocytosis. On the third day, a control CT was performed, and the pneumomediastinum, pneumoperitoneum and pneumoretroperitoneum had decreased, although the subcutaneous emphysema had increased and a small pneumothorax had appeared in the right lung base as well as bilateral small pleural effusion with passive bibasilar atelectasis. The blood culture was negative, and the patient showed no signs of sepsis, so we decided to keep imipenem for only 10 days.

The outcome was favorable. On the tenth day, the antibiotic treatment was finished and the patient was discharged from the hospital after a final CT scan showed decrease of the pneumomediastinum, pneumoperitoneum, subcutaneous emphysema, pneumoretroperitoneum and pneumothorax. The pleural effusion and atelectasis were completely resolved. Months later, the patient remains asymptomatic with normal tomographic and blood test results.

Discussion

Without any signs of sepsis and because of the negative blood cultures, it was proposed that the massive pneumo may be caused by barotrauma.

A staple line too low, 2-3 centimeters above the recommended linea pectinea, in combination with a suture too deep including the peritoneal fold, could have allowed the entry of air around the rectum. The air may have extended through the rectum fascia to the retroperitoneum and could have entered into the peritoneum through the root of the mesentery or through their own mesenteric

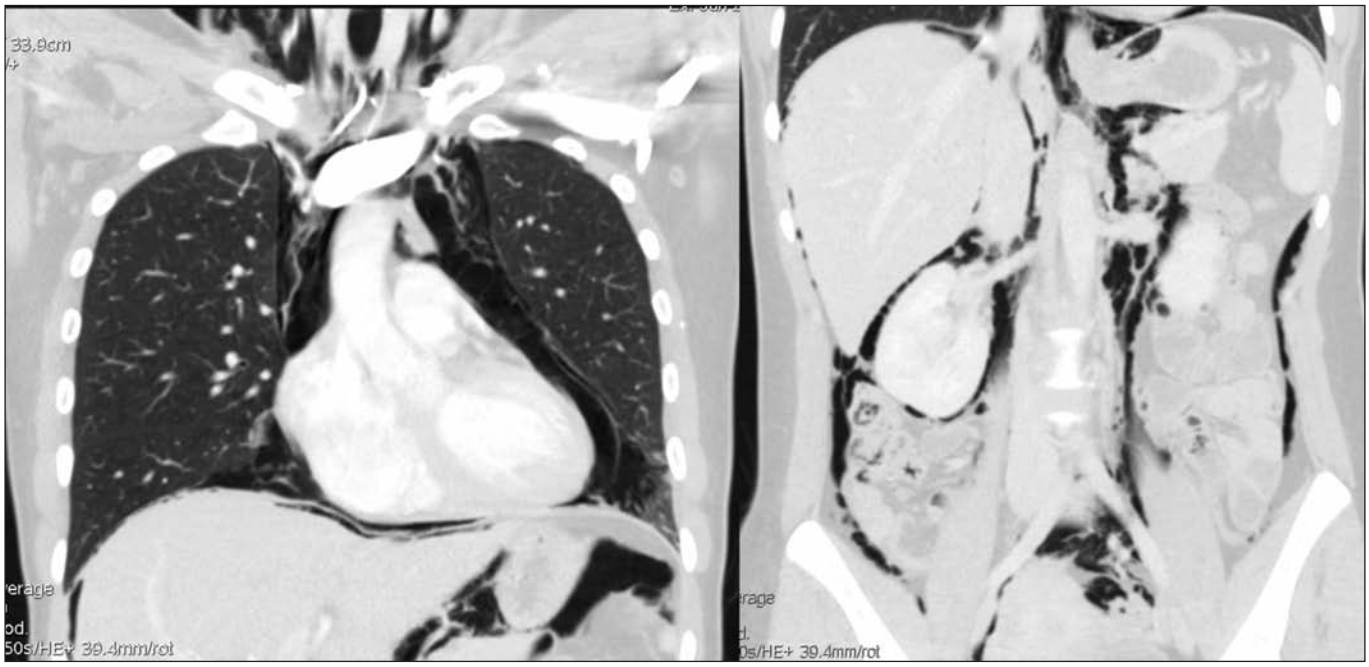

Fig. 1. Thoraco abdominal CT scan with pneumomediastinum, pneumothorax, pneumoperitoneum and pneumoretroperitoneum.

vessels and the esophageal hiatus reaching the mediastinum. The extension of the pneumo from the peritoneum to the mediastinum may have been through diaphragmatic defects or through the pericardium by the inferior cava vein. From the mediastinum, the air dissects fascial planes of the neck, goes into the pleural space through the parietal mediastinic pleura and to the pericardium, through the reflection of the pericardium from the pulmonary veins (7).

In conclusion, in selected cases, the massive pararectal, peritoneal, retroperitoneal, mediastinal, pericardial and subcutaneous air that may appear as a potentially serious complication after a Longo hemorrhoidopexy can be medically conservatively treated without requiring surgical measures, with clinical monitoring.

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