

Appendix 2

Scenario 1: A 63-year-old man underwent a right hemiliver resection for a hepatocellular carcinoma. The patient complained about right upper quadrant pain and developed a fever on postoperative day 4. A CT scan revealed an infected biloma in the right upper quadrant, which was drained percutaneously. After successful drainage of the biloma, the patient became acutely dyspnoeic due to a significant pneumothorax. A thorax drain was inserted to treat the pneumothorax.

Scenario 2: A right hemihepatectomy was performed elsewhere due to a metastatic disease in a 75-year-old woman. Then, the patient developed signs of sepsis on postoperative day 3. The same team performed a re-laparotomy, revealing a perforation of the small intestine, which required a partial colonic resection. The patient showed persisting signs of sepsis and hemodynamic instability, and was later referred to our center. Due to the deterioration of the patient's condition, including respiratory and renal failures, the patient was re-intubated. A third laparotomy disclosed an insufficiency of the intestinal anastomosis, which was corrected with a new anastomosis. An intraperitoneal VAC system had to be applied because of the retraction of the abdominal wall. Subsequently, several laparotomies were necessary over the next few weeks because of recurrent leakages in the small intestine. Finally, the patient expired in our ICU after 25 days.

Scenario 3: A 57-year-old patient underwent an elective anterior sigma resection for a cancer. The patient developed excruciating abdominal pain, a high-grade fever, and leukocytosis five days after surgery. The patient was taken back to the OR, where an anastomotic breakdown was documented. A Hartmann's procedure was performed. Then, the patient was admitted to the ICU, and developed an ARDS and renal failure requiring dialysis over the next few days. A number of other problems occurred including a wound infection

treated at bedside and deep vein thrombosis, requiring anticoagulation. The patient died 17 days later.

Scenario 4: The same scenario as in *scenario 3*, but the patient recovered, and was, finally, able to leave the hospital after three months of hospitalisation. He was very frail and could hardly walk. He was transferred to a rehabilitation home.

Scenario 5: A 92-year-old patient presented with severe acute cholecystitis. Although the patient also suffered from severe cardiovascular disease and was considered as ASA IV, a laparoscopic cholecystectomy was performed. During surgery, the patient died from cardiac arrest.

Scenario 6: The same patient as in *scenario 5*, but the patient died before surgery, during intubation.

Scenario 7: A 60-year-old diabetic patient underwent a rectal resection for adenocarcinoma in another facility. The patient had a long-term corticosteroid therapy due to a rheumatic disease. The patient developed abdominal pain, fever and leukocytosis six days later. A re-laparotomy was performed, revealing an anastomotic insufficiency. The small pelvis was drained, and a protective ileostomy was performed. The patient was subsequently referred to us because of hemodynamic instability, but the patient died three days later in our ICU due to a fulminant sepsis.

Scenario 8: A 75-year-old patient underwent an aortic aneurysm repair and developed severe abdominal pain a few days after surgery. We were called to evaluate the patient for suspicion of an ischemic bowel. Despite a negative clinical and radiological evaluation, we performed an exploratory laparotomy, but failed to document any intraabdominal pathology.

Scenario 9: After an uneventful hernia repair, a 28-year-old man was discharged 2 days after the procedure. Four days later, he came to the emergency room complaining of epigastric pain. He had no fever and lab results were normal. We performed an upper GI endoscopy, which revealed an uncomplicated duodenal ulcer. We prescribed a proton pump inhibitor and the patient was discharged on the same day.

Scenario 10: Our colleagues from gynecology called us to consult a patient in the operating room. They were involved in the re-laparotomy of a 57-year-old woman, undergoing a Wertheim's operation and found a severe peritonitis, with a perforation in the small intestine. We performed a segmental resection of the small intestine with end-to-end anastomosis. Two days later, a re-laparotomy was indicated again, due to the suspicion of an anastomotic leakage. We were called again and could re-sew a small leak at the anastomotic site. The patient eventually recovered fully. The patient remained in the gynecological ward for the entire stay.

Scenario 11: A 37-year-old woman was operated on the thyroid due to cancer. On day 3, the patient developed severe pain in the left groin. A clinical evaluation revealed an incarcerated femoral hernia, for which the patient received an emergency operation. The following course was uneventful.