

Overwhelming Post-Splenectomy Sepsis Eleven Years after Distal Pancreatectomy for Pancreatic Cancer

Enrico Dalla Bona, Cosimo Sperti, Valentina Beltrame, Lucia Moletta, Claudio Pasquali

Departments of Surgery, Oncology, and Gastroenterology, University of Padua. Padua, Italy

Context Overwhelming post-splenectomy sepsis (OPSI) is defined as septicemia and/or meningitis, usually fulminant, occurring days to several years after removal of the spleen. The risk of OPSI is estimated to be 0.23-0.42% per year with a lifetime risk of 5%. The highest risk of developing OPSI is within the first few years after splenectomy, particularly in children younger than 2 years and elderly patients. The incidence of sepsis is also associated with the underlying disease, with higher incidence for patients splenectomized for hematologic disease rather than for trauma. We report a case of a fulminant pneumococcal sepsis with a fatal outcome, occurring 11 years after distal pancreatectomy and splenectomy for pancreatic adenocarcinoma. **Case report** A 58-year-old woman presented to the emergency room in December 2011 with a 2-day history of mild fever and diarrhea, followed by hypotension, dyspnea, and peripheral cyanosis. Past medical history revealed a left breast quadrantectomy for lobular carcinoma (pT1N1M0G2) and distal pancreatectomy with splenectomy for ductal pancreatic adenocarcinoma (pT3N1M0G2) in October 2000. The patient was not aware of the need for prophylactic antibiotics and vaccination. Two years

after surgery, she underwent excision of paraaortic lymph node, site of pancreatic cancer recurrence. Adjuvant therapy and oncological follow-up was planned. At admission, blood tests revealed abnormal coagulation screen, abnormal liver and kidney function, and metabolic acidosis. Despite the administration of intravenous fluid, vasopressor agents, antibiotics and mechanical ventilatory support, the patient died for multiorgan failure 7 hours after admission in intensive care unit. Blood culture showed the growth of *Streptococcus Pneumoniae*. Necropsy showed multiorgan failure with adrenal necrotic hemorrhage due to pneumococcal septicemia. No recurrence of pancreatic cancer was noted. **Conclusions** Although rare, OPSI is a well-known fatal complication which can occur to asplenic patients. The role of vaccination and antibiotics in preventing such complication is well-defined, but cases of fatal post-splenectomy sepsis are still reporting, also in vaccinated patients. There is a need of practical guidelines for patients and physicians, and a high index of suspicion must be maintained for any febrile illness in asplenic patients.