Gram Positive Sepsis from an Abdominal Source

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Introduction: The incidence of post-Endoscopic Retrograde Cholangiopancreatogram (ERCP) bacteremia is common. It is imperative to recognize that Gram negative organisms are not the only group to cause bacteremia or sepsis in such patients. Our patient presented with Systemic Inflammatory Response Syndrome (SIRS) and was subsequently found to be septic with Gram positive cocci in chains, one month after undergoing an ERCP.

Case: A 77-year-old gentleman presented to our hospital with abdominal pain, fever, tachycardia, hypotension, conjunctival icterus, and a recent change in mental status. A few months prior, he had been evaluated for painless jaundice with an ERCP. At that time he was diagnosed with pancreatic adenocarcinoma. A biliary stent was placed for decompression and the patient elected a course of radiation, which he completed one week prior to presentation. Vital signs on admission were temperature 101.9ºF, heart rate 129 and regular, respiratory rate 14, blood pressure 112/58 mmHg, and oxygen saturation 95% on room air. Laboratory studies were significant for pancytopenia: leukocytes 2700/uL, hemoglobin 11.4 g/dL, hematocrit 32.2%, and platelets 132,000/uL. Liver enzymes were elevated and showed an obstructive pattern, but were trending down from previous levels. Pancreatic enzymes were normal. CT scan of the abdomen was significant for the presence of a common bile duct stent and mild inflammatory changes around the head of the pancreas and duodenum without any fluid collection. The patient was started on ciprofloxacin and metronidazole in the Emergency Room to cover common gastrointestinal organisms. Two sets of blood cultures were reported growing Gram positive cocci in chains. Vancomycin therapy was initiated because the patient was allergic to penicillin. Ciprofloxacin and metronidazole were discontinued at this point. By hospital day four, the patient showed significant symptomatic and clinical improvement. The final identification of the organisms causing the sepsis was *Streptococcus Group F* and *Streptococcus intermedius*.

Discussion: While gram negative organisms are more often responsible for infections involving the gastrointestinal system, it is imperative to recognize that gram positives are also commensally related to the human pharynx and gastrointestinal tract. While the exact incidence of Gram positive organisms in ERCP is not known, in patients who are not quickly responding to anaerobic and gram negative coverage for SIRS post-ERCP, one should have a high index of suspicion for gram positive organisms.