

Stercoral Peritonitis Leading to Septic Shock: Successful Use of Adjunctive Hemoadsorption in a Critically Ill Patient

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Introduction

Stercoral peritonitis is a life-threatening consequence of stercoral colitis, resulting from colonic perforation due to fecal impaction and pressure-induced necrosis. Without prompt intervention, this condition can rapidly escalate to septic shock and fatal multi-organ failure

Methods

A 64-year-old female patient underwent exploratory laparotomy for acute intestinal obstruction. Intraoperatively, stercoraceous peritonitis was identified, secondary to colonic perforation from fecal impaction. Postoperatively, the patient developed severe septic shock, complicated by acute kidney injury and respiratory failure. Laboratory evaluation revealed elevated serum creatinine (3.4 mg/dL), a lactate level >3 mmol/L, a 256 mmHg P/F ratio and a near-normal blood pH of 7.38. She remained profoundly hemodynamically unstable, requiring high-dose vasopressor support to maintain adequate perfusion. Broad-spectrum antimicrobial therapy with meropenem and a combination of piperacillin-tazobactam was promptly initiated. Due to persistent septic shock and multi-organ dysfunction, the patient underwent two sessions of hemoperfusion using Toraymyxin (PMX-DHP) for endotoxin removal. Given the ongoing inflammatory response and hemodynamic instability, CytoSorb therapy was initiated and lasted 24 hours. The next day, a second CytoSorb session followed as part of extracorporeal blood purification to further reduce circulating inflammatory mediators.

Results

Despite initial aggressive resuscitation and supportive measures, the patient remained in critical condition, underscoring the complexity of sepsis-related multi-organ failure. The use of extracorporeal therapies contributed to a progressive improvement in hemodynamic stability (see Figure 1), allowing time for antimicrobial therapy to take effect. Over the following days, the patient's condition gradually improved; she became alert and clinically more stable. She was subsequently transferred in stable condition to the surgical department for continued management and follow-up care

Conclusion

The integration of extracorporeal purification was associated with gradual hemodynamic improvement. This may have played a key role in controlling the overwhelming cytokine storm, bridging the critical period until the antimicrobial therapy could exert its full effect

Figure 1: lactate trend over CytoSorb treatment period

