

Elevated ascitic fluid amylase, a foreshadowing of intestinal perforation

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INTRODUCTION

- Elevated ascitic fluid amylase concentration is characteristic of pancreatic ascites. Nevertheless, ascitic amylase values greater than 2000 u/L can also be seen in intestinal perforation.
- Fungal peritonitis represents approximately 12% of all cases of peritonitis, with Candida being the most common cause.
- Patients with hollow viscus perforation are at high risk of developing Candida peritonitis (CP); which has very serious consequences and a mortality rate estimated between 20 and 70% .

CASE PRESENTATION

We present a case of a patient without evident risk factors for fungal peritonitis whose ascitic fluid was notable for yeast and elevated amylase with a final diagnosis of intestinal perforation.

- A 54-year-old female with a medical history of metastasized transitional cell urethral cancer arrived at our institution due to persistent non-bloody vomiting, diffuse abdominal pain, and worsening abdominal distension for a month. Initial evaluation was a remarkable for distended, tense abdomen with normoactive bowel sounds and positive fluid wave.
- Images were remarkable for large amounts of ascites, with a faint enhancement of the peritoneal surface consistent with acute peritonitis and findings concerning partial small bowel obstruction with free retroperitoneal air of unknown origin. The patient was started on intermittent suction via a nasogastric tube. Diagnostic and therapeutic paracentesis was performed.
- CT urogram was performed due to concern of bladder perforation, which was remarkable for diverticular microperforation. Ascitic fluid analysis was consistent with secondary peritonitis, with yeast species and markedly elevated ascitic amylase at >7,500u/L in the setting of normal pancreatic enzymes. Empiric coverage for fungal peritonitis was started with caspofungin.
- Hospitalization was complicated by shock and acute abdomen. Emergent imaging revealed duodenal jejunal mesenteric ischemia with perforation of the proximal jejunum and peritonitis. The patient underwent exploratory laparotomy with palliative gastrostomy, lysis of adhesions, and peritoneal lavage. After the intervention, blood cultures came back positive for candida glabrata. The patient completed therapy for fungemia and was discharged to hospice care.

DISCUSSION

- Candida peritonitis is most seen as secondary peritonitis. It generally occurs as a result of translocation of micro-organisms across the bowel wall, perforation of a hollow viscus, or instrumentation of the gastrointestinal tract. It is associated with high morbidity and mortality.
- This case raises awareness of careful evaluation of elevated ascitic amylase with concomitant yeast species in ascitic fluid gram stain, as they can both be indicators of intestinal perforation where a surgical approach can be lifesaving.***

LABORATORIES

Ascitic Fluid:			
Appearance	purulent	BF protein	<2.4g/dL
Color	Green	BF LDH	>2,290 U/L
RBC	10,000 cells/uL	BF PH	7.5
WBC	537,000 cells/uL	BF; amylase	>7,500 u/L
PMN	62%		
MONO	37%	Serum:	
		Amylase	43 U/L

IMAGES

