



Pathology & Biology Section – 2004

G78 Pure Group A Beta Streptococcal Peritonitis in a Child With Inflammatory Bowel Disease

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After attending this presentation, attendees will be able to discuss the rare phenomenon of pure Group A Beta Streptococcal peritonitis, and to describe the possible relationship between this death, previous colonic biopsy, and childhood inflammatory bowel disease. Current surgical practice regarding colonoscopic perforation will be described.

The forensic community will be more familiar with the rare occurrence of pure Beta Streptococcus peritonitis, and of current practice related to bowel perforation during colonoscopy.

A seven-year-old child with a history of ulcerative colitis presented to the emergency department with increased abdominal pain and collapsed, expiring after prolonged resuscitative efforts. He underwent colonoscopy with biopsy 4 days prior to death. Peritonitis was diagnosed in the Emergency Department, and microbiologic culture subsequently yielded a pure culture of Group A, Beta Hemolytic Streptococcus.

Autopsy revealed peritonitis resulting from a perforation of the descending colon. Diffuse erythematous skin discoloration, typical of streptococcal infection, was observed. Changes of ulcerative colitis extended from the midtransverse colon to the anocutaneous line. Original biopsy slides were reviewed and were shallow mucosal specimens, without full-thickness extension.

Pure Group A, Beta Streptococcal peritonitis has rarely been reported, and has been described only in cases of primary peritonitis. In streptococcal primary peritonitis, toxic shock syndrome often accompanies the abdominal findings. Adults who present with streptococcal primary peritonitis often have chronic ascites, nephrotic syndrome, or immunosuppression.

The incidence of perforation from diagnostic colonoscopy ranges from 0.2 to 0.8%. Non-operative management in cases of known perforation is acceptable in some circumstances.

Perforation occurs in less than 5% of cases of childhood ulcerative colitis. Colonic perforation in ulcerative colitis usually occurs in association with toxic megacolon or severe fulminant disease.

Beta Streptococcal Peritonitis