Peri-Appendiceal Inflammation in an 8-Year-Old Child with Chronic Ulcerative Colitis

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Abstract. The peri-appendiceal red patch (PARP) or appendiceal orifice inflammation (AOI) is a known complication of non-pancolonic ulcerative colitis (UC), but it is not well documented in the pediatric pathology and gastroenterology literature. Here we describe the youngest patient with this manifestation to date and provide a brief review on PARP associated UC.

Introduction

Peri-appendiceal red patch (PARP) or appendiceal orifice inflammation (AOI) has been recognized in 3.4-75% of ulcerative colitis (UC) patients [1] from 14 to 77-year-of-age [2, 3], but most commonly in adults. The remarkable variation in the documented incidence of this entity is likely the result of the studies being both prospective and retrospective, and including either colectomy or endoscopy specimens [1]. While PARP is well documented in the adult literature, it is less widely acknowledged amongst pediatric gastroenterologists and pathologists (personal communications), possibly secondary to this complication of UC presenting less frequently amongst children. We present the youngest patient with PARP to date.

Case Presentation

An 8-year-old boy presented with 1 month of hematochezia. Physical examination, blood and stool tests were normal. Colonoscopy 4 weeks later revealed confluent recto-sigmoid inflammation and ulceration. There was an abrupt cessation of the inflammation from the descending colon to the cecum. However, a 3-4 cm diameter peri-appendiceal inflammatory patch was noted. The terminal ileum was normal. Blood tests at this time showed mild anemia (Hgb 11.3 g/dl) and hypoproteinemia (3.3 g/dl). IBD (Inflammatory Bowel Disease) serology was normal. Histology demonstrated mild chronic active inflammation in the cecal patch (Figure 1). The ascending, transverse and descending colon were normal. However, the recto-sigmoid colon had similar chronic active inflammation as the peri-appendiceal patch (not shown). The child was diagnosed with ulcerative procto-sigmoiditis complicated by peri-appendiceal inflammation. He has responded well to oral and rectal mesalamine therapy.

Discussion

The occasional presence of a cecal inflammatory island opposite to the ileocecal valve was recognized by Lumb and colleagues in 1958 [4]. Cohen and co-workers demonstrated the appendiceal/peri-appendiceal inflammation to manifest as a skip lesion in UC [5]. Such skip lesions may occur in the 70-80% of UC patients with non-pancolonic UC [6] and complicates 3.4-75% of these cases.
depending on the inclusion criteria of the studies [1]. The severity of the inflammation usually matches that of the distal colon [6]. PARP calls the attention to the unique association between appendiceal and distal colonic physiology. Our patient is the youngest reported case to date with PARP UC.

References