INTRODUCTION

Disorders of the anus and rectum present frequently in infants and children, so it is important for the pediatric surgeon to identify conditions that require operative intervention. Fortunately, most minor anorectal disorders respond successfully to initial management and rarely recur. The following diseases will be addressed in this chapter, in relation to recurrence and reoperative surgery: rectal prolapse, fistula-in-ano, hemorrhoids, and anal warts. Management of perianal disease secondary to Crohn’s disease and congenital anomalies of the anus and rectum are presented in other sections of this book.

RECURRENT RECTAL PROLAPSE

Rectal prolapse is defined as full-thickness protrusion of the rectal wall out of the anal canal. The typical presentation of rectal prolapse is a 1- to 3-year-old child who develops a bulging mass exiting the anus after defecation (1). The mass will often disappear spontaneously, is usually painless, and may have minor surface bleeding. Rarely, an older child may present with an incarcerated rectal prolapse associated with intense pain and bleeding. The etiology of childhood rectal prolapse is thought to include chronic constipation, lack of fixation of the rectum, prolonged periods of straining during “potty training,” and lack of angulation of the pelvis and rectum in the first several years of life (1–3).

Evaluation of a child with rectal prolapse includes a thorough history and physical examination. Stooling patterns, history of constipation and/or diarrhea, evaluation of
muscular or neurological impairment, and dietary habits are all key elements. The physical examination includes growth and development parameters, which may be abnormal in children with previously undiagnosed cystic fibrosis. The physical stigmata of a connective tissue disorder, such as Ehlers-Danlos syndrome, should be assessed during the examination. Visual inspection of the perineum evaluates anal position and external masses, whereas the digital rectal examination assesses anal tone and the presence of internal masses. We have observed that referring physicians often confuse rectal prolapse with external hemorrhoids. In rectal prolapse there are circular concentric folds, whereas in hemorrhoids, the folds are radial, as shown in Fig. 1. If no obvious pathology is visualized on initial examination, it may be helpful to have the child blow up a balloon or to reexamine the child after allowing time to sit on the toilet and attempt defecation. One can also ask the parents to provide a digital photograph of the rectal prolapse when it occurs in the home setting.

A child with documented rectal prolapse should undergo a sweat chloride test, because previously unsuspected cystic fibrosis is found in 6–20% of these patients (3,4). In selected patients, thyroid function studies should be performed to exclude hypothyroidism, and genetic testing should be considered if the physical examination is suggestive of a connective tissue disorder. A contrast enema is helpful in eliminating an anatomic cause for the prolapse.

Because the majority of children with rectal prolapse will have chronic constipation, treatment includes dietary adjustment, high-fiber foods, and a laxative bowel regimen. If the prolapse fails to respond to a carefully followed bowel regimen for at least 6 months, or if the patient has an underlying connective tissue disorder, operative treatment should be considered. The operations designed for the treatment of rectal prolapse are classified into two main approaches, perineal and abdominal (1,3,5–7). Our preferred initial management is placement of a Thiersch wire using an 0-prolene suture as the “wire,” and tightening the suture over a 10-F Hegar dilator (Fig. 2–4). If prolapse recurs after placement of the initial Thiersch wire, we favor a second wire, especially

![Fig. 1. Rectal prolapse.](image-url)