The Gastroenterologist's Role in Management of Perianal Fistula

Robin L. Dalal, MD[a], David A. Schwartz, MD[b,*]

KEYWORDS

• Perianal • Crohn's disease • Fistula • Combination therapy

KEY POINTS

- Perianal Crohn's disease is common and carries significant morbidity for patients.
- Medical and surgical therapy for perianal fistula has improved greatly.
- Endoscopy plays a role as an adjunct to medical and surgical management of fistulizing perianal Crohn's disease.
- Currently, a multidisciplinary approach to complex perianal fistulas is believed to lead to the best outcomes.

INTRODUCTION

Perianal fistulas are common in the Crohn's disease population and can be disabling to patients. Knowledge of fistulizing Crohn's disease has grown immensely over the past 75 years and therapies have improved greatly. This article reviews fistulizing Crohn's disease and examines the current strategies of management including medications, endoscopy, and surgical care.

ANATOMY

Before embarking on a discussion of perianal fistulizing disease, it is important to understand the anatomy of the area. Perianal anatomy is complex and involves the pelvic floor musculature and the gastrointestinal tract. As seen in **Fig. 1**, the anal canal is composed of epithelial lining, subepithelium, supporting tissues with intertwining neuronal networks, and specialized musculature including the pelvic floor and anal sphincter complex.[1] Within the lumen, the upper anal canal is composed of the transitional and columnar epithelium of the rectum. This changes to the squamous anal

[a] Division of Gastroenterology, Vanderbilt University Medical Center, 1600 The Vanderbilt Clinic, Nashville, TN 37232-5280, USA; [b] Division of Gastroenterology, Vanderbilt University Medical Center, Suite 220, 1211 21st Avenue, Nashville, TN 37232, USA
* Corresponding author.
E-mail address: David.a.schwartz@vanderbilt.edu

Gastrointest Endoscopy Clin N Am 26 (2016) 693–705
http://dx.doi.org/10.1016/j.giec.2016.06.008
giendo.theclinics.com

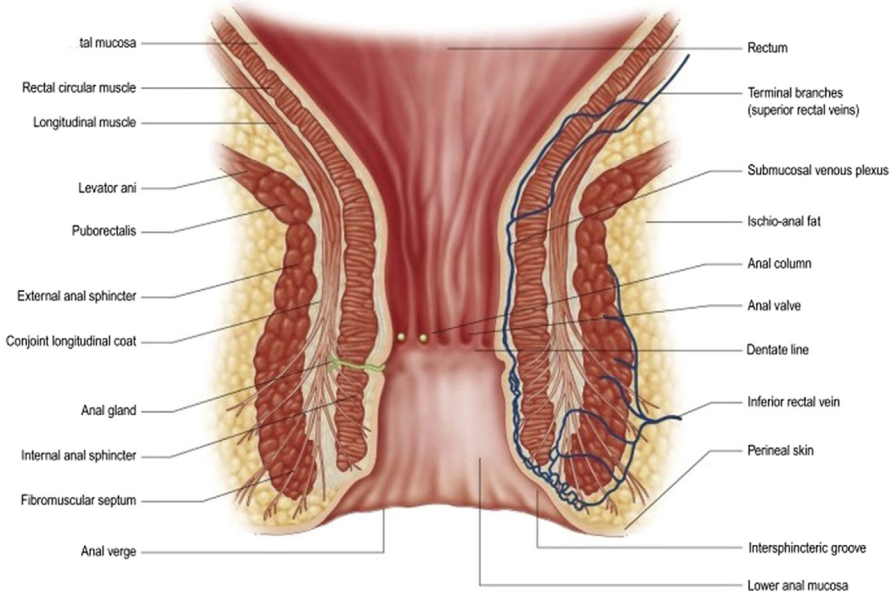

Fig. 1. Anatomy of the anal canal. (*From* Standring S. Lower intestine. In: Standring S, editor. Gray's anatomy, vol. 41. Philadelphia: Elsevier; 2016. p. 1136–59; with permission.)

epithelium at the dentate line. At the dentate line, there are anal columns and crypts. The bases of crypts may contain anal glands that then may penetrate the supporting tissues including the intersphincteric space. The anal sphincter complex is composed of the internal anal sphincter and the external anal sphincter. The internal anal sphincter is the thickened terminal extension of the circular muscle of the rectum and the external anal sphincter is a tube of striated muscle extending from the puborectalis muscle. **Fig. 2** shows the interplay of the sphincter complex and the rest of the pelvic floor.

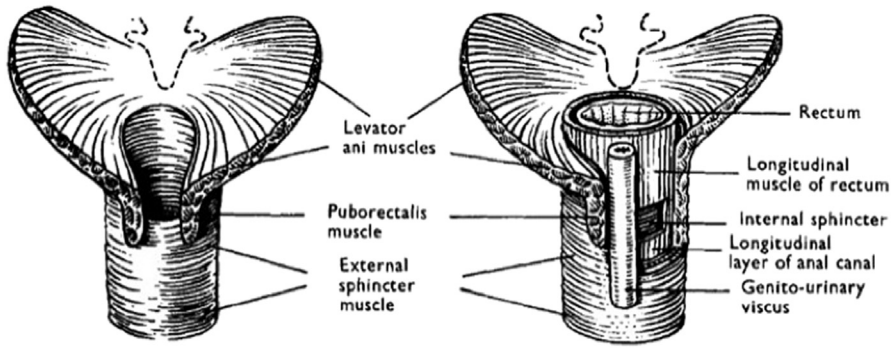

Fig. 2. Diagram of the pelvic floor and anal sphincter complex. (*Modified from* Parks AG, Gordon PH, Hardcastle JD. A classification of fistula-in-ano. Br J Surg 1976;63(1):1–12; with permission.)