3.1 Introduction

A patient with anal fissures and hemorrhoids may be operated on by a general surgeon, but a patient with anal fistula needs to be managed by a specialist. Professor Goligher, in his book which for decades has been the bible of large-bowel surgery, wrote that it is more difficult to successfully operate on a patient with a complex recurrent anal fistula than on a patient with rectal cancer.

More than the risk of a recurrence, what concerns the patient with anal fistula prior to surgery is postoperative fecal incontinence (Ellis, 2010). Clearly, the colorectal surgeon understands, better than the general surgeon, the anatomy and function of the anal sphincter as well as the other factors responsible for anal continence. Therefore, this chapter will mainly deal with postoperative incontinence, which, as Professor Phillips wrote in his book (Chapman & Hall, 1996), sometimes is “the price to pay” for cure.

However, this chapter begins with a description of other complications.

3.2 Postoperative Bleeding

Severe hemorrhage may occur following surgery for anal fistula, albeit less frequently than after a procedure for hemorrhoids. Over a period of nearly 40 years, with over 800 operations for anal fistula, only three of my patients have had severe postoperative bleedings. While none of them needed a blood transfusion, in one case an emergency re-intervention was necessary. The first bleeding incident occurred about 20 years ago, following the lay-open of a high intersphincteric tract. At that time, I did not routinely marsupialize the surgical wound. During the night, this male patient bled from the wound at the level of the submucosal plexus, just above the anorectal ring, such that I had to position and inflate a Foley catheter in the rectum to stop the hemorrhage. The second episode occurred about a year ago. This female patient had a large chronic ischiorectal abscess with a trans-sphincteric fistula, and acutely bled into the wound one hour after surgery, from the inferior aspect of the levator muscles. Despite vigorous compression of the ischiorectal cavity with a wad of gauze, the bleeding did not stop and the patient developed tachycardia and hypotension. She was therefore given intravenous fluids returned to the operating theatre, and placed under general anesthesia, in order to suture the bleeding site. Some muscular fibers had been injured during excision of the abscess. While re-exploring the ischiorectal space, it became clear that a careful and effective hemostasis had not been carried out, because at the end of the first operation I had relied upon compression of the gauze introduced inside the ischiorectal cavity. Fortunately, the patient had no further troublesome consequences. The third and last bleeding incident occurred a few months ago and involved a young male who had undergone a lay-open of a low posterior intersphincteric fistula. He also had first-degree internal hemorrhoids, which slightly bled during fistulotomy but were cauterized using diathermy (Fig. 3.1). Five days later, probably when the eschar sloughed off, a delayed hemorrhage occurred and the patient was taken to the Emergency Department of the nearest hospital, where local compression using gauzes soaked with a pro-coagulant drug was used to stop the bleeding. By that time, I had been marsupializing the surgical wounds in such procedures, but in...
that particular patient I thought that this was unnecessary, as the fistulotomy wound was rather small and prevalently external. In retrospect, I should have marsupialized the wound.

If we look at the literature, it is clear that I have been rather lucky, as a bleeding rate of 20% after fistulotomy and after seton, and of 10% following fistulectomy and rectal flap advancement have been reported (Ho and Ho, 2005).

To prevent or at least minimize the risk of postoperative bleeding, it is better:
1. Not to rely upon the gauze filling the residual cavities, also because excessive compression, which is likely to cause postoperative pain, should be avoided; instead, a careful hemostasis should be carried out, if necessary using Surgicel or Tabbotamp.
2. To marsupialize even small wounds, especially if they are associated with internal piles, which might bleed afterwards; marsupialization significantly decreases the wound size (Fig. 3.2), thus shortening the convalescence, and reduces the risk of bleeding without increasing postoperative pain (Pescatori et al., 2006; Malik and Nelson, 2008).

3. To carefully inspect the surgical wound once the patient has returned to the ward; if the gauze has become bloodied, it is advisable to take it out and to control any active bleeding.

3.3 Iatrogenic Fistula

This condition may be caused by excessive intraoperative probing. In patients with a trans-sphincteric fistula, once a probe has been inserted through the external orifice, we should bear in mind that, after a few centimeters, the tract direction is likely to change: rather than proceed cranially, towards the anorectum, it will cross the external sphincter. By continuing to push the probe upwards, a false tract is created, i.e., an extra-sphincteric iatrogenic fistula, across the levator ani muscle to the suprarectal space, which thereafter will communicate with the external orifice at the level of the perianal skin.

3.4 Persisting or Early Recurrent Local Sepsis

After the operation, when seeing the patient in the ward, there is nothing worse than hearing: “Doctor, listen, I feel a painful induration here, close to the anus,” or “Look, there is some pus coming out here in the groin…” or “….here on the tip of the coccyx, I feel discomfort, is there anything wrong?”. Upon examination, we may unfortunately find residual sep-