7.1 Introduction

Anal condylomata and anal stricture are dealt with in the same chapter because an anal stricture may follow the excision of condylomata, especially if they are giant and/or invade the circumference of the anal canal. The patient with condylomata is often difficult to manage due to concomitant diseases that cause immunodepression and is more prone to complications and recurrences.

As far as rectal stricture, this may be the consequence of a low rectal anastomotic dehiscence and may concern not only specialists, but also general surgeons, e.g., after anterior resection of the rectum. Indeed, anterior resection syndrome, in which there is fecal urgency and anal incontinence, possibly with proctalgia, is seen in up to two thirds of these patients, especially those receiving neoadjuvant radiotherapy prior to surgery, and is usually related to a deficient reservoir, weak sphincters, and post-dehiscence stricture and fibrosis. The following case illustrates the complexity of these patients. A skilled general gastrointestinal surgeon, able to perform both open and laparoscopic procedures, referred a 55-year-old woman to my unit. She had undergone a stapled ultra-low anterior resection of the rectum, performed by a specialist in the USA, after a course of radiochemotherapy. She was rather depressed and complained of anal incontinence and obstructed defecation. Her history revealed a supra-anastomotic diverticulum, the consequence of a suture breakdown, an injured internal sphincter, possibly due to intra-operative stretching, a deficient pelvic floor from two vaginal deliveries, an anorectal stricture, related to the post-dehiscence fibrosis, and a coloanal mucosal intussusception, causing fractioned defecation (Fig. 7.1). The reason for the referral was the need for anal sphincter rehabilitation, and my Italian colleague knew that we had a good physiotherapist at our unit. However, since apart from the sphincter dysfunction, the above-mentioned organic lesions were also present, a surgical re-intervention was indicated, aimed at treating the sphincter disruption, anorectal stricture, supra-anastomotic diverticulum, and internal mucosal prolapse. I told my colleague that the insertion of a probe in the anal canal, to carry out either biofeedback or electrostimulation, would not only have been painful for the patient but was likely to worsen the associated organic lesions. He wisely admitted that, being a general surgeon, he lacked experience to properly deal with such a case, and therefore asked me to carry out the re-operation and manage the rehabilitation. After the injection of bulking agents (Durasphere) to “reinforce” the internal sphincter, I operated on the patient via a transanal route, avoiding excessive sphincter stretch with the anal retractor. The mucosal prolapse was excised, the diverticulum closed by means of a layered suture to obliterate the cavity, and the stricture managed with an anoplasty. After one month, when the surgical wounds had fully healed, the patient underwent a course of pelvic floor rehabilitation. Meanwhile, she had taken advantage of the opportunity to see our psychologist for a couple of months and had markedly improved. This is an example of a multidisciplinary approach to deal with a complex case of anterior resection syndrome.

In addition to following condylomata excision and anterior resection, anorectal stricture may also occur after other surgeries, such as hemorrhoidectomy and prolapsectomy, and may be managed by either abdominal, transanal, or combined procedures. This chapter discusses both the prevention and the treatment of this troublesome complication.
Fig. 7.1a The dynamic relationships of the normal anatomy of the levators ani, puborectalis muscle, external sphincter, longitudinal muscle of the rectum, and internal sphincter. During defecation, the relationship between these structures changes as shown.

Fig. 7.1b The lamellar structure of the internal sphincter, with a shift in the orientation of the lamellae from horizontal to oblique during opening of the anal canal. Lateral to the internal sphincter are the neural structures and the longitudinal muscle of the rectum, which pops up.

Fig. 7.1c Anterior resection, in its various phases, in a patient receiving pre- or postoperative radiotherapy, would clearly damage the delicate structures and mechanisms described above. In particular, radiotherapy causes fibrosis; transanal dilatation causes sphincter stretching; colo-anal suturing can result in internal sphincter damage; and dissection between the rectum and elevators muscles, through the abdomen, may damage the sacral nerve endings. These events give rise to anterior resection syndrome, which is characterized by proctalgia, tenesmus, defecatory urgency, and anal incontinence.