CHAPTER 5

Posterior Perineal Techniques

General Introduction

Although the *anterior* rectal wall, recto-vaginal septum and perineal body are prime areas of local weakness of the ano-rectal organ associated with incontinence and prolapse, *posterior* perineal procedures have always been popular when surgical correction has been attempted. From the earliest descriptions of Lange (1887) [8], Tuttle (1903) [13] and Lockhart-Mummery (1910) [9] up to the present day, many surgeons have employed the posterior approach as the method of choice for a perineal fixation of the rectum. One such repair [the post-anal (Parks) operation] [10] demands a high level of familiarity with the sphincteric anatomy. However, most surgeons are familiar with the dissection via the perineum of the tissues in the plane between the lower rectum and the front of the coccyx and sacrum as a part of their training for the abdomino-perineal (Miles) operation for cancers of the lower third of the rectum; this route can also be adapted for fixation of rectal prolapse and repair of the external anal sphincter, as in the Wyatt technique (pp. 70–77).

The post-anal repair (Parks), which is carried out through the intersphincteric plane, is a swift and largely bloodless operation. However, it is painful and can be destroyed if the wound becomes infected. The posterior perineal repair (Wyatt) [14] involves a more formidable dissection in which there are often time-consuming delays caused by the presence of large amounts of fatty tissues and from brisk bleeding by the inferior rectal arteries (and their branches) on each side: however, septic complications of the wound are more likely to settle without destroying the repair. Both types of operation require meticulous attention to prevention of infection. This is achieved by emptying completely the distal bowel pre-operatively by mechanical means and the use of per-operative antibiotic cover.

Because the speed and safety of these perineal operations are usually the deter-
mining factors when they are chosen for particular patients, at present most experienced colorectal specialists carry out more intersphincteric than truly post-rectal operations. However, for surgeons outside specialist centres the latter approach may prove more popular, as they will be more at home with the anatomy, and there are fewer risks of injury to the rectum by straying from the correct plane of dissection.

At present, the results of these alternative approaches have not been compared by a prospective trial with convincing follow-up observations. It can be stated with conviction, however, that the surgeon should not expect more than two-thirds of his incontinent patients to be substantially improved, and only 50% at best to be cured [1,7,10,15]. It is also the authors' experience that strict patient selection and meticulous technique are vital to achieving even such modest success. As with all operations there is a learning curve to be passed, and disappointing initial results should not discourage persistence with these procedures when they are indicated on good grounds of safety and a desire to give the patient at least a reasonable chance of a normal social life. In some of these cases, a permanent colostomy may be the sole practical alternative if the problems of incontinence are severe, and the patients are unfit for major surgery.

Post-anal Intersphincteric Repair
(Syn. Parks Technique [1,2,10,15]. Posterior Levatorplasty)

Introduction

The operation of “post-anal repair” was developed by the late Sir Alan Parks [10] in an attempt to help patients with idiopathic faecal incontinence [5]. The aetiology of the condition is unclear but electro-physiological tests have suggested that it is the result of denervation of the pelvic floor and external anal sphincter muscles. Most patients are female and it is possible that the denervation is caused by traction neuropathy of the nerves supplying the pelvic floor and may be either the result of excessive straining to defaecate, or a consequence of difficult childbirth, especially in those patients who undergo prolonged labour with forceps delivery [11,12].

As a result the muscles of the pelvic floor degenerate and are stretched. Muscle degeneration is found to the least extent cranially in the ileococcygeus muscle and increases progressively in a caudal direction to affect the external anal sphincter most of all. This muscle is usually so severely affected that rarely can any worthwhile active contraction be obtained. There is, however, nearly always some residual function in the pubo-rectalis and pubococcygeus muscles.

The operation of post-anal repair makes full use of this muscle sparing, and by bringing together the opposite limbs of the ileococcygeus, pubococcygeus and puborectalis muscles, shortens their muscle fibres and improves the efficiency of the atonic muscle. In addition, approximation of these muscles reconstitutes the ano-rectal angle which, in turn, restores the flap valve mechanism at the ano-rectal junction [3].

In normal subjects, resting anal canal pressure is mainly due to maintained tonic contraction of the internal sphincter. Resting pressure in patients with idiopathic faecal incontinence is usually low as a result of repeated stretching of the internal sphincter during abnormal pelvic floor descent. Repair of the pelvic floor and external sphincter muscles does to some extent protect the internal sphincter from further damage and promotes some recovery of function.

At present neuropathic damage to muscle cannot be reversed; all that can be achieved is to make the muscle mass act more efficiently and correct anatomical abnormalities [1]. The anatomical changes seen in