

atlas of Therapeutic Proctology

Emilio de los Ríos Magriña

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Foreword

*"To conceptualize is only an intellectual translation
of an impression of reality"*

X. ZUBIRI, *La inteligencia sentiente*, 1980

As a sequel to the successful *Atlas de Coloproctologia*,* a fundamentally descriptive book, this new work by Dr. Emilio de los Ríos is devoted to describing the therapy of proctologic disorders.

The area of interest is defined as surgical therapy of anal and rectal diseases that do not require a laparotomy. These diseases include hemorrhoids, perianal abscesses and fistulas, proctitis, benign tumors, fecal incontinence, and certain forms of rectal prolapse.

These diseases are both common and painful because of the somatic innervation of the distal two-thirds of the rectal canal. On the other hand, the complexity of functional and anatomic factors of the anorectal canal, such as the mechanism of continence, makes detailed basic and technical knowledge essential for successful surgery of this area; inadequate understanding leads to postoperative morbidity.

Unfortunately the anatomic location of these diseases is conducive to embarrassment on the part of the patient. The need for special facilities led to the tendency to treat these patients in certain surgical units. The extraordinary scientific and clinical work of St. Mark's Hospital of London is one important example.

The excellent photographs and the text of this work represent a vast personal experience. It is the extraordinary quality of the illustrations, as well as the clear didactic prose, that in my judgment makes this book so interesting and useful. The photographs are

*E. de los Ríos, *Atlas de Coloproctologia*, Salvat Editores, Barcelona, 1976. The English translation was prepared by Dr. John T. Galambos and Dr. Theodore Hersh and published in 1980 by the W. B. Saunders Company as the *Color Atlas of Anorectal Diseases*.

FOREWORD

realistic and illustrate the pathology in its most characteristic form, making it readily understandable.

According to the objectives of this beautifully edited book, it unravels anorectal pathology and reevaluates and emphasizes the importance of correct surgical treatment.

CRISTÓBAL PERA
Professor of Surgery
University of Barcelona

To Silvia and Olga

Preface

Medical and surgical therapy is constantly improving, not only in its practice by individual doctors, but also in institutions. These changes are particularly apparent in the case of surgical techniques.

In this Atlas, I have compiled the therapeutic methods that, in my own personal opinion, have given me the best results during my 25 years of experience of treating patients with proctologic disorders.

I believe that the publication of many photographs of operations provides real images that can assist the reader better than drawings can. We have only used diagrams for the better explanation of certain photographs or surgical details in which photographs would not be sufficiently clear.

I am deeply thankful to the Division of Medicine of the Salvat Editores Company for their facilities and interest. The photography was by Rafael Carrasco and Silvia de los Ríos. The drawings were by José Antonio Soriana and Olga de los Ríos.

EMILIO DE LOS RÍOS MAGRIÑÁ

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Therapeutic Proctology

INTRODUCTION

Proctologic diseases usually present in combination rather than as isolated entities. It is uncommon for the proctologist to find only hemorrhoids or only a fissure. In general, patients have anorectal problems for a long period of time before they consult a specialist. Their symptoms occur intermittently, and pain is episodic during the flare-up of an acute inflammatory episode. These usually remit spontaneously or improve with topical medication. Such episodes may cause inflammation of the entire anus (i.e., anusitis) or hemorrhoidal congestion that leads to papillitis and cryptitis. After an acute flare-up the tissues do not return to normal, because of the inflammation-induced fibrosis.

The majority of the anal diseases present a remitting course. Acute attacks are followed by asymptomatic periods. These episodes may in some cases be attributed to dietary transgressions, alcohol, or spices. Constipation is often blamed for hemorrhoids and fissures. In other cases such as fistulas there is no apparent reason why the fistulous orifice closes and creates a new abscess.

In practice all lesions must be considered when surgical therapy is being contemplated. For example, a fistulectomy or a fissurectomy is inadequate therapy when a group of hemorrhoids, hypertrophic papillae, or a cutaneous fibroma also needs to be excised to free the patient from the anal disease. It is for didactic reasons that each procedure is separately described here.

THE NATURE OF PROCTOLOGIC SURGERY

Before deciding on a surgical procedure, one must consider both the benefits and the consequent inconveniences of such an intervention.

Besides emergency surgery, there are some rare elective cases in which predictable poor functional results are acceptable. For example, aggressive intervention is justifiable in oncologic surgery. On the other hand, the patient's poor condition (e.g., cardiovascular or respiratory illnesses or metabolic disturbances) may be a contraindication for otherwise beneficial surgical therapy, as in the case of a hemorrhoidectomy for a patient who is in generally bad health.

Apart from the operative risks, one must evaluate the sequelae of surgical therapy, which can be more bothersome than the illness for which the operation is performed. The resection of sensory and motor fibers or poor scar formation may give rise to more complaints than did the original illness. In proctology the scar has great functional import. Scars have neither elasticity, sensitivity, nor contractility; therefore this nonfunctional tissue in the anus disturbs the physiology of defecation.

The anus is a functional entity that needs to open in order to defecate and to close perfectly for continence. The excision of the entire mucocutaneous tissues of the anus impairs not only continence but also defecation. The most typical example of this is the Whitehead hemorrhoidectomy, in which the entire hemorrhoidal plexus is excised. The consequent large circular scar causes terrible functional results due to stenosis, and incontinence develops in the majority of patients. Therefore, it is a basic proctologic surgical dogma that "the larger the scar the greater the postsurgical complication." If the operative scar involves the entire circumference of the anus, it will produce stenosis. Therefore, excision is performed in two or three segments, leaving intact sufficiently wide cutaneous bridges. In some cases it is preferable to opt for a smaller scar after a hemorrhoidectomy by leaving a small hemorrhoidal nodule in place if it will not cause any symptoms. Cabaniè said that "a properly performed hemorrhoidectomy should consist of leaving some subclinical hemorrhoids that will remain asymptomatic." However, there are more complex cases (e.g., fissures with hemorrhoids and papillitis, complex fistulas, and large cutaneous fibromas) that require ample excision in order to eliminate the entire anal pathology and leave the patient totally free of problems. On occasions, a residual cutaneous fibroma can be more bothersome than the fistula that motivated the intervention. The following are problems that are unique to proctologic surgery:

1. The anal canal external from the pectinate line is a highly sensitive cutaneous zone. Therefore, a wound in this region causes more symptoms and pain than one in the arm or in the abdomen, for example.

2. The operative field cannot be securely covered and remains exposed for several days. Although by pharmacologic and dietetic means one can delay the return of bowel movements and reduce their frequency, there is no safe, secure, and certain way to abolish altogether a first postoperative defecation as difficult and painful as it is. One can never retard it long enough for the surgical wound to heal completely.

3. Because of the need to defecate, proctologic surgery is a “septic” surgery. A basic principle of surgery states that septic wounds should not be sutured, to avoid abscess. It is therefore necessary to leave proctologic wounds more or less open so that they drain freely and heal by secondary intention. Therefore the consequent scar is larger than if it were sutured and healed by primary intention.

The bowel habits of the patient are an important consideration. Let us remember that the anus is permanently closed by the tonic contraction of its sphincters and that it is the pressure of a fecal bolus that opens it. Some proctologists assume that a larger caliber stool benefits the outcome by dilating the anus, and this transient stretch reduces scar formation. Although this thought may console the patient after a painful postoperative bowel movement, there is no physiologic basis for this assumption. Some individuals who are extremely fearful of pain may abuse laxatives and pass liquid stools. In this case the anus hardly opens, causing anal stenosis and poor postsurgical results.

For this reason, patients with a tendency to diarrhea or loose stools should have only minimal resection of the anal canal so that the scars will also be small and not interfere with the diameter of the anus. When the wound must be wide because of the extent of the lesion, the postoperative healing process should be watched very closely and rectal examinations should be performed to dilate the anus. A large-caliber fecal bolus can probably better dilate the anus than the physician can. Pressure from the inside of the anus to the outside seems to be more physiologic and less bothersome compared with the dilatation from the outside to the inside.

The anal wounds, as previously stated, should be left totally or partially open. They become epithelialized during the course of 4 to 6 weeks. During the first postoperative week, granulation tissue forms and collagen is deposited. The patient must be closely watched during this period of scar formation. Postoperative follow-up in undisciplined or laxative-addicted patients requires weekly or even more frequent visits to the physician for digital rectal examination. Although bothersome, these examinations are important to prevent stricture formation. Patients who do not return for follow-up and who continue to take laxatives on their own are likely to have poor surgical results.

When planning a proctologic surgical procedure, one should evaluate the patient's previous anal scars as to whether or not these were caused by surgery or by trauma. One also should look for keloids. The personality of the patient should affect the decision concerning how aggressive an operation should be performed.

SURGICAL METHODS

The patient who is to undergo an anal surgical procedure should be admitted to the hospital at least 4 hours before the operation.

Patients scheduled for early morning surgery should be admitted the previous afternoon. The evening before surgery, a low-residue light supper should be eaten. In the case of anxious or nervous patients, a light sedative such as diazepam is given the night before. One hour before the operation, a cleansing enema should be administered. Ordinarily, a hyperosmotic enema of 250 ml is enough to produce an adequate evacuation. In the case of a constipated patient, however, it is preferable to administer two 1500-ml isotonic saline enemas, one 10 and another 2 hours before surgery. Some 30 minutes before surgery the preoperative medications are given to the patient, according to the instructions of the anesthetist.

Unless there is a contraindication (such as articular lesions of the hip or other diseases), the position for the operation is that of lithotomy or a gynecologic procedure. The legs are both markedly abducted and flexed over the abdomen. This position affords excellent exposure to the operative site, and the anesthetist can have easy access to the patient. The prone decubitus position with light flexion of the hip is used only for surgery in the sacrococcygeal region, not for anal surgery. Patients in the prone position may experience some difficulty breathing, requiring intubation; also, the operative exposure of the anus is inadequate.

Two types of anesthesia can be used: general or epidural, depending on the patient's general health or preference. When surgery is performed in the operating room, it is uncommon to use local anesthesia, particularly if the patient will remain hospitalized. Shaving the region takes place with the patient already anesthetized. Shaving the anal and perianal region with the patient awake in the hospital room is not only distressing to the patient but leaves the area inadequately prepared. When painful lesions, such as abscesses, thromboses, or fissures are present, adequate shaving cannot be accomplished without anesthesia.

In order to disinfect the operative site, we generally prefer colorless liquids. Although the antiseptics with dyes do mark the disinfected zone very well, in our judgment these dyes may cause difficulty in identifying certain landmarks and lesions. When operative photographs are taken, colorless antiseptics are indispensable for accurate photographic representation of the lesions.

The gynecologic Sims' speculum is most useful for exposing the operative site in the anal canal. The size depends on the lesions to be excised. When the Sims' speculum is managed by a good assistant, it gives better exposure than that obtained with self-retained dilators. In obese patients or those with prominent buttocks, the anus may not be adequately exposed. To retract the perianal tissues in these cases, wide adhesive strips should be placed some 10 cm lateral from the anal margins and the tape attached to a structure on the operating table, thereby pulling the gluteal mass away from the anus. We do not recommend the forced dilation of the anus prior to surgery; indeed we

think it is actually damaging in that it can cause postoperative incontinence and hematomas.

Before proceeding with any incision, it is necessary to examine the anal canal in detail to identify the normal structures and areas with minimal damage, which can be left intact to conserve the needed mucocutaneous bridges between operative wounds.

The dissection of the mucocutaneous areas, detaching the integumentary zone from its fixed muscular base, is very easy when such fixations are lax, as is the case with prolapsing hemorrhoids. When the tissues are well attached to the muscular base, the dissection of the mucosa and the skin can be laborious but can be made easier by subcutaneous and submucosal infiltration of physiologic saline.

The following instruments are used for a routine proctologic operation: Sims' speculums of various sizes, six curved hemostatic forceps with a fine point and six with teeth, six Allis's forceps, two forceps of dissection (one with teeth and one without teeth), and two needle holders. In the case of fistulas, flexible stylets may be very useful, and separators may also be required. A detergent solution and a disinfectant should be readily available to clean instruments and gloves during the operative procedure.

Hemostasis of the small vessels is accomplished by electrocoagulation, and of the major blood vessels by ligature with size 00 catgut. At the end of the operation, we leave a resorbable gelatinous sponge over the skin wounds to prevent small hemorrhages. We do not leave any type of packing or foreign body in the anal canal. These are very bothersome and are totally unnecessary.

It is a useful practice to infiltrate 10 ml of a long-acting anesthetic such as bupivacaine around the anus or simply in a zone 3 cm posterior from the anal margin, since about 80 per cent of the sensory innervation of the anal canal runs through this area. The duration of the anesthetic is some 5 to 6 hours, which is the most distressing postoperative period. One should take the precaution of administering the local anesthetic 2 or 3 minutes after having discontinued the administration of the general anesthetic (while the patient is still anesthetized), since the solutions used contain dilute epinephrine, which can cause difficulties if Fluothane was used for general anesthesia. Topical anesthetics in an oily base often cause abscesses or oleogranulomas and therefore are not recommended.

The first 24 hours of the postoperative period can be very uncomfortable for the patient. Analgesic and antispasmodic agents may be administered when necessary. If minimal trauma was inflicted and dilatations and packing were not used, opiates are not necessary.

Because of the close anatomic proximity of the bladder and the interrelationship of the muscles and nerves, urinary retention is common in the period after proctologic surgery. This occurrence is more common in males than in females. In many cases urinary retention is easily resolved by sedation and reassurance. In the more difficult cases, a cholinergic agent, such as oral bethanechol, 10 mg every 6 hours,

will resolve this problem. Occasionally, one may have to catheterize the patient.

During the first 24 postoperative hours, the patient is given a diet of clear liquids. On the following day, a bland diet may be initiated and stool softeners may be given to those patients who are constipated. If the patient has not evacuated spontaneously by 48 hours after the operation, a 250-ml hyperosmotic enema should be administered. However, prior to the enema an analgesic injection should be given so the patient can defecate painlessly. Patients who cannot retain the enema should be given two Dulcolax or glycerin suppositories.

Postoperative incontinence of gas and liquids is not uncommon, because of paresis of the sphincters. This condition is usually transient, but it is advisable to inform patients of this possibility preoperatively so that they do not become upset and depressed if postoperative incontinence temporarily develops.

After defecation, the operative site and the anal region should be cleansed; this should be done a minimum of twice a day, even if the patient has not defecated. The area is washed with large amounts of tepid water, and patients may perform this part of the treatment themselves. The water is poured on, perhaps under some pressure, followed by rinsing with a detergent solution and disinfectant, which can be applied with a large pear-shaped syringe with a rubber top. This part of the treatment is performed by the nurse, separating the buttocks so that the operative wound is thoroughly cleaned. Following the cleansing and disinfection some antibiotic powder or ointment is applied. Maximum cleanliness of these wounds is imperative, or pyogenic granulomas may form, increasing scar formation and irritating the adjacent skin.

The control of external medications in the perianal lesions is always difficult and uncomfortable. The application of adhesive plaster or bandages with great frequency is very irritating. The classic bandage in the form of a T is useful, but a well belted "slip" is more comfortable and practical.

Once patients are able to evacuate spontaneously, they can be discharged from the hospital on the fourth or fifth postoperative day. During the weekly follow-up visits, the scar is examined and the area is also checked for pyogenic granulomas. These can be treated with application of silver nitrate sticks.

Well-formed stools are desirable, since these will physiologically dilate the anus and may help prevent stenosis. If the patient is either addicted to laxatives or constipated, bulk laxatives or stool softeners (or both) are given, and these patients are seen biweekly for digital examination and dilatation of the anus. Frequent dilatations are not necessary if the healing process is proceeding without stenosis.

We do not advocate instrumental dilatations that are uncomfortable and painful. The need to resort to these techniques indicates an error of the operative technique or a failure of postoperative care during the process of scar formation.

A frequent symptom during the period of healing is pruritus. This is caused by secretions from the wound or, in some cases, by a fungal overgrowth favored by the use of topical antibiotics.

The speed with which the wound heals depends on the regenerative capacity of each individual. Complete healing takes place between the fourth and sixth weeks, at which time the patient can be discharged from follow-up care. It is recommended, however, that another examination take place 4 to 6 weeks later—that is, approximately 2 to 3 months after the date of the surgical intervention. Anoscopy is performed during this last follow-up.

After the second postoperative week, during the process of healing, it is useful for the patient to perform anal exercises. The sphincter is contracted as if to prevent the act of defecation, followed by a discrete bearing down as if to evacuate. The patient should conduct ten of these movements three to four times a day. This form of exercise helps the sphincter regain its elasticity and tonicity.

AMBULATORY TREATMENT

Besides topical treatment with suppositories and ointments, some less severe anal illnesses may be treated successfully by surgical methods that do not require postoperative hospitalization. These afflictions include subcutaneous abscesses, hemorrhoidal thromboses, anal polyps, and, most commonly, grades 1 and 2 internal hemorrhoids.

These ambulatory treatments are well accepted by patients, since generally it is so disagreeable to have surgery and remain hospitalized. However, it is a mistake to pretend to resolve all proctologic problems with ambulatory therapy. Minor ambulatory surgery can be performed under local anesthesia. Nevertheless, the same surgical principles apply here as to surgery performed in the operating room: asepsis and hemostasis. One should not perform a debridement, no matter how superficial and small it may appear, when one only has one scalpel. One has to have on hand hemostatic forceps, needle holders, and suture material. In a great number of these cases, we will only use the scalpel, but on some occasions there may be so much bleeding that an uncomfortable situation can develop. A cutting electrode and electrocoagulation should be available, since even a small skin incision can produce a wound that may lead to exsanguination. Sterile gauze and towels should also be available for confining the operative field.

For the treatment of internal hemorrhoids with sclerotherapy, cryotherapy, or elastic ligatures, it is not necessary to have the equipment mentioned above, but simply an anoscope and the specific instruments required (see Treatment of Hemorrhoids, Ambulatory Procedures).

2

Treatment of Hemorrhoids

INTRODUCTION

Anal diseases are common. Rare are the adults who have not suffered some proctologic disorder during their lifetime. Hemorrhoids are the most frequent problem, accounting for 80 per cent of these afflictions.

It is not unusual for patients to blame all their anal pathology on hemorrhoids, which they usually do have, but at the same time they may be suffering from other anal, rectal, or perineal problems that are ignored in favor of the easy diagnosis of hemorrhoids.

Other proctologic abnormalities must be excluded before a diagnosis of hemorrhoids is made by standard history and physical examination. Large hemorrhoids may be completely asymptomatic, and patients can attribute vague complaints to them when in reality another rectal or extrarectal process of urinary, genital, or osseous origin is to blame. Therefore, before instituting medical or surgical treatment of hemorrhoids, it is advisable to exclude other anorectal or pelvic diseases, using the clinical history, examination, endoscopy, and radiology. A therapeutic recommendation based entirely on the physical findings of hemorrhoids may lead to therapeutic failure if symptoms are caused by another process. The search for another lesion is most critical in cases in which rectal bleeding is the presenting symptom.

THERAPEUTIC INDICATIONS

There are numerous therapeutic procedures for hemorrhoids, from an innumerable variety of ointments, creams, and suppositories to diverse surgical techniques. The vast therapeutic arsenal overwhelms the physician who is not a specialist in this area. This therapeutic