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Chapter 1

Introductory Chapter: A Surgical Point of View on Proctology

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Additional information is available at the end of the chapter

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1. Introduction

Proctology is the specialized branch of general surgery that studies anorectal diseases. Anorectal disorders are common conditions. Their prevalence in the general population is probably much higher than that seen in clinical practice as most patients do not seek medical attention. There is no prevalence of sex, men and women of any age can be affected. The spectrum of anorectal disorders ranges from benign to potentially life-threatening (anorectal cancer). Gupta [1] divided the anorectal lesions into common, less common, and uncommon (**Table 1**). The symptoms are often not specific and difficult to evaluate; cultural and social constraints make it difficult for some patients to talk about problems in anal disorders, and doctors do not always ask patients about potential symptoms, which can delay diagnosis. In a study conducted in France, Abramovitz et al. [2] contacted 39 doctors who have joined

Common	Less common	Uncommon
Hemorrhoids	Pilonidal sinus disease	Strictures of anal canal or rectum
Anal fissures	Neoplasm	Solitary rectal ulcer
Anal fistula	Condylomas	Incontinence
Abscesses	Connective tissue masses	
Polyps	Antibioma (organized abscess)	
Rectal prolapse	Inflammatory conditions	
Anal skin tags or sentinel pile	Inflammatory bowel disorders	
Anorectal sepsis	Hypertrophied anal papillae	

Table 1. Common anorectal diseases [1].

Symptoms	Patients coming spontaneously for a proctological problem (n/%)	Proctological problem after questioning (n/%)	p-Value (Fisher's exact test)
Bleeding	8 (40.0)	41 (30.8)	0.4
Pain	12 (60.0)	35 (26.3)	0.004
Anal lump	2 (10.0)	31 (23.3)	0.2
Anal discharge	4 (20.0)	18 (13.5)	0.5
Uncontrolled anal leakage	0	22 (16.5)	0.08
Constipation	4 (20.0)	47 (35.3)	0.2
Diarrhea	1 (5.0)	11 (8.3)	1.0
Pruritus ani	8 (40.0)	26 (19.6)	0.08

Table 2. Main symptoms of anorectal diseases and their percentages without and after the questionnaire [2].

through the use of a questionnaire; the results obtained showed the main symptoms of anorectal diseases and their percentages without and after the questionnaire (**Table 2**).

2. History and proctological examination

Evaluation of anorectal disorders comprises of a careful history and physical examination before the patient can be subjected to various investigations. These disorders are commonly encountered in general surgical practice, and patients are usually in pain, often anxious and frequently embarrassed by the examination. A careful detection of anorectal and gastrointestinal symptoms (GI) and the presence of systemic disease clarify the diagnosis of most anorectal disorders. It is useful to ask standard questions to the patient about time and circumstances of onset of symptoms, duration, quality, and eventual exposure to radiation. Alterations in bowel habits should be noted: changes in color, frequency, or consistency of the stool and the presence of straining, flatus, and incontinence of solid or liquid stool. The presence of Crohn's disease, cancer, and polyps can favor the appearance of uncommon forms of anorectal problems. However, also systemic diseases such as acquired immunodeficiency syndrome, gastrointestinal malignancies, diabetes mellitus, and coagulopathy are prone to develop more serious complications of standard anorectal conditions. Patients should provide information directly to the examiner physician about sexual practices involving the anus [3]. The physical examination should take place in private, with the patient's modesty respected. The patient can then relax the external sphincter to facilitate a complete examination. The choice of position depends on the equipment available, the examiner's preference and experience, and the patient's habitus. Most frequent positions for proctologic examinations are three: lithotomic, knee-elbow position, and left lateral; the last is usually the most used in surgery (**Figure 1**) [4]. The lithotomy position allows for direct doctor-patient communication—with eye contact maintained—and patient comfort; knee-elbow position facilitates the inspection of the perianal region but it is relatively uncomfortable for the patient; the left lateral position is comfortably and readily practicable, even with very obese patients, and allows for proctologic exams

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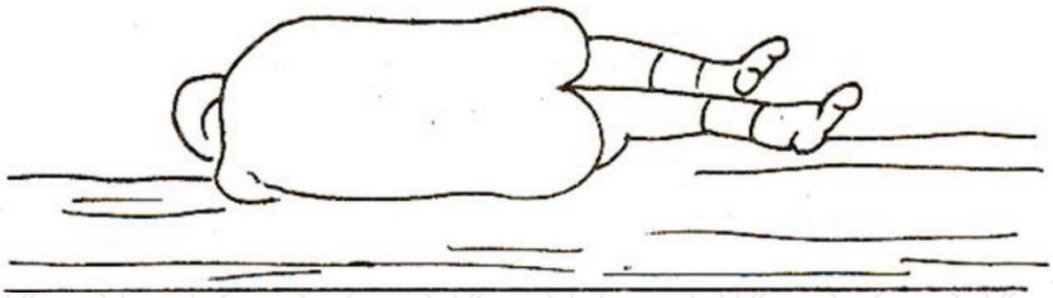

Figure 1. Left lateral position for proctologic examinations.

even on classic examination tables or on patient beds [5]. Digital rectal examination should not be missed. Through a lubricated glove, finger is placed at the anal verge and gently inserted through the anal canal into the rectum. Rectal mucosa is examined for benign or malignant lesions. It is possible to feel at least 10 cm from anal verge and perform an anal sphincter evaluation at rest and in contraction. Anoscopy and proctoscopy can help to examine of the lower part of rectum and anal canal through a proctoscope. Through this examination, we can evaluate the presence of hemorrhoids, internal opening of the fistulous tract, anal polyps, fissures, and ulceration can be identified. To date, this examination has lost interest and has been replaced by the most complete colonoscopy.

3. New perspectives

Anorectal diseases have long been considered of little interest; their treatment was considered of little prestige despite the social impact they cause to patients. Proctology was born late and developed slowly over the years. However, in the last 20 years, a renewed interest has been affirmed, thanks to the contribution of authors such as Antonio Longo who with his theory of unit prolapse and the description of innovative surgical interventions (hemorrhoidopexy, STARR, Transtar, POPS, and SIR) has been able to stimulate the interest of many surgeons in the world in regards to pathologies considered of minor importance. Today, we can affirm that important results have been achieved in the treatment of hemorrhoidal pathology, the treatment of fissures, abscesses and fistulas, obstructed defecation syndrome, rectal prolapse, pelvic floor functional disorders, and fecal incontinence. These positive results have allowed a very high percentage of healing in respect of the anatomical and/or functional integrity of the sphincter apparatus and with greater acceptance by patients. All this has been possible due to the specific professional competence acquired by proctologists, and to the more precise anatomo-clinical definition and the more accurate physiopathological interpretation of the various morbid manifestations. When necessary, a multidisciplinary approach was implemented with the integration of the skills of the proctologist, the urologist, the gynecologist, and the radiologist. Fistula-in-ano, obstructed defecation, and fecal incontinence are still major surgical challenges. The high rate of surgical failure and the need for repeat surgery are common experiences of physicians dealing with these conditions. One reason for these poor results is the lack of comprehensive knowledge about the pathophysiology of these diseases, and therefore, surgery treats the symptoms and not the causes. In the last decade, funding

opportunities for benign anorectal disease research have increased vastly. The turning point was a better comprehension of anatomic damage, determined by magnetic resonance imaging and endoanal-endorectal ultrasound. The latter is becoming the paramount diagnostic instrument for use by colorectal surgeons, as it allows a clear understanding of underlying anatomic defects. Through the use of new diagnostic technologies (2D-3D endoanal ultrasonography and pelvic-perineal MRI) and morphofunctional diagnostic methods (anorectal manomentry, defecography, defeco-TC, defeco-RMN, anal electromyography, and evaluation of motor latency time pudendal nerve), a better anatomical and physiological definition was possible which allowed to better define the clinic aspects and the therapy. Generally, proctology is associated with pathologies such as hemorrhoids, fistulas, and anal fissures; in this book, we have preferred to deal with lesser known topics concerning new pre- and post-operative instrumental diagnostic techniques and of less frequent morbid conditions such as fecal incontinence and rectal prolapse with a reference also to the malignant pathology of the colon-rectum.

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