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REVIEW

Internal rectal prolapse: Definition, assessment and management in 2016

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Management

Summary Internal rectal prolapse (IRP) is a well-recognized pelvic floor disorder mainly seen during defecatory straining. The symptomatic expression of IRP is complex, encompassing fecal continence (56%) and/or evacuation disorders (85%). IRP cannot be characterized easily by clinical examination alone and the emergence of dynamic defecography (especially MRI) has allowed a better comprehension of its pathophysiology and led to the proposition of a severity score (Oxford score) that can guide management. Decision for surgical management should be multidisciplinary, discussed after a complete work-up, and only after medical treatment has failed. Information should be provided to the patient, outlining the goals of treatment, the potential complications and results. Stapled trans-anal rectal resection (STARR) has been considered as the gold standard for IRP treatment. However, inconsistent results (failure observed in up to 20% of cases, and fecal incontinence occurring in up to 25% of patients at one year) have led to a decrease in its indications. Laparoscopic ventral mesh rectopexy has substantial advantages in solving the functional problems due to IRP (efficacy on evacuation and resolution of continence symptoms in 65—92%, and 73—97% of patients, respectively) and is currently considered as the gold standard therapy for IRP once the decision to operate has been made.

Abbreviations: IRP, internal rectal prolapse (procidentia); ERP, exteriorized rectal prolapse.

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[1] *Égale contribution des 2 premiers auteurs pour ce travail.*

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Strong points

- Internal rectal prolapse (IRP) is an entity in itself, with extremely varied symptomatology (constipation and/or anal incontinence, pain); diagnosis relies most often on dynamic defecography.
- There are four radiological grades of IRP according to the level of rectal intussusception. Rectocele is often associated.
- The main risk factors are advanced age, female gender, and multiparity. However, 20—30% of IRP are observed in nulliparous women or men.
- First-line treatment should be conservative, except when high-grade IRP coexists with incontinence; here, surgery can be entertained right from the start.
- Surgical treatment is essentially represented by laparoscopic ventral mesh rectopexy; this has become the reference because of its efficacy and low morbidity, compared with trans-anal procedures, whose indications are limited today.

Introduction

The clinical entity of internal rectal prolapse (procidentia) was poorly recognized when pelvic floor disorders were presented in the 2002 French National Surgical Congress report [1]. It was included, although not individualized as such, in what was called the ''rectal prolapse syndrome''. Included in this syndrome were, on one hand, external or externalized rectal prolapse (ERP), well known to colorectal surgeons and, on the other, rectocele or posterior colpocele, well known to gynecologists.

Fifteen years later, the entity of internal rectal prolapse (IRP) is still only rarely observed but has been distinguished from ''ERP'' and its characteristics have been delineated and defined. The diagnosis of IRP is most often suggested when the clinician is faced with varied symptoms that surgeons have learned to recognize, and are well visualized with the modern radiological techniques. Moreover, new therapeutic approaches have been evaluated that can be proposed to patients when conservative treatment has failed. Management should be multidisciplinary [2] and should be part of an overall approach to pelvic floor disorders; gastro-intestinal surgeons should work together with radiologists, gastro-enterologists, urologists and gynecologists.

The goal of this article is update the different aspects of IRP, from diagnosis to multidisciplinary management.

Definition, pathophysiology and risk factors

IRP is defined as an endo-lumenal intussusception of part or the entire rectal wall, without any exteriorization visible at the level of the anus [3]. This intussusception is more or less circular, resulting when the upper part of the rectum engages in the lower part, usually at 8—10 cm from the anal verge, typically at the level of Douglas' pouch. It occurs during straining which increases intra-abdominal pressure, and in particular, during defecation. Intussusception usually starts on the anterior wall of the rectum, before progressing to involve the descent of the posterior wall, thus becoming circumferential. This is important to remember in the understanding of the concept of ''ventral'' (anterior) rectopexy, which we will discuss later.

The apex of intussusception, identified radiologically, can remain in the rectal ampulla or engage in the anal canal, and this determines the grades of severity of IRP (Table 1) [3]. A statistically significant correlation has been found between the age of patients, most often women, and the grade of IRP, strengthening the idea that this pelvic floor disorder is in reality an early stage of ERP [3].

In addition to age, the various risk factors identified for IRP include: female gender, obstetrical history (vaginal delivery, previous obstetrical trauma) and hormonal status, in particular, onset of menopause [3]. However, 20 to 30% of patients presenting with IRP are nulliparous or men. It has been suggested that IRP might be the result of dysfunction of the elastic fibers of the rectal wall [4]: systemic connective tissue diseases are recognized risk factors for IRP [4]. All events that increase intra-abdominal pressure such as straining, constipation or chronic coughing are elements that favor the onset of IRP [3,4]. Anismus is, by the characteristic efforts provoked, also a cause of IRP.

Table 1 Oxford radiological rectal prolapse grading system [3].

		Grade of rectal prolapse	Radiological characteristics of rectal prolapse
Internal rectal procidentia (IRP)	Recto-rectal intussusception	I (high rectal)	Descends no lower than proximal limit of the rectocele
		II (low rectal)	Descends to the level of the rectocele, but not onto sphincter/anal canal
	Recto-anal intussusception	III (high anal)	Descends onto sphincter/anal canal
		IV (low anal)	Descends into sphincter/anal canal
External rectal prolapse (PRE)	Exteriorized rectal prolapse	V (overt rectal prolapse)	Protrudes from anus