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Guideline

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The Italian Unitary Society of Colon-Proctology (SIUCP: Società Italiana Unitaria di Colonproctologia) guidelines for the management of obstructed and ineffective defecation syndrome

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The aim of these evidence-based guidelines is to present a consensus position from members of the Italian Unitary Society of Colon-Proctology (SIUCP: Società Italiana Unitaria di Colonproctologia) on the diagnosis and management of obstructed defecation syndrome (ODS), with the purpose of guiding physicians in the selection of the most appropriate treatment option. A panel of experts was appointed by the Board of the SIUCP to develop key questions addressing the main topics related to the management of ODS and to perform an accurate literature search for each topic, in order to provide evidence-based answers and to summarize them in structured statements. All clinical questions were discussed by the expert panel over multiple rounds using the Delphi approach, and consensus among the experts was achieved for each statement. The questions were formulated according to PICO (patients, intervention, comparison, outcome) criteria, and the statements were developed using the GRADE (Grading of Recommendations, Assessment, Development, and Evaluations) methodology. In patients with ODS refractory to first-line medical therapy, rehabilitation may be considered as a therapeutic option, particularly in cases of dyssynergic defecation, whereas a surgical approach may be indicated in patients with a high symptom score and an Oxford prolapse grade system score ≥3 on defecography (using magnetic resonance imaging or another modality). Surgical options include stapled transanal rectal resection and ventral mesh rectopexy, eventually combined, respectively, with pelvic organ prolapse suspension and sacrocolpopexy in the presence of multicompartment pelvic prolapse. A transverse perineal support procedure may be considered in the presence of excessive perineal descent. In patients with recurrent symptoms after surgery, transanal irrigation may represent a useful therapeutic option.

Keywords: Defecation disorders; Rectal prolapse; Rectocele; Pelvic floor; Constipation

PRELIMINARY STATEMENT

The Italian Unitary Society of Colon-Proctology (SIUCP: Società Italiana Unitaria di Colonproctologia) aims to enhance patient care by fostering the adoption of innovative technologies and supporting research activities. Its guideline committee comprises members with recognized expertise and scholarly contributions in the field of coloproctology. These guidelines provide clinicians and patients with evidence-informed recommendations on the diagnosis and management of obstructed and ineffective defecation syndrome, with the goal of aiding the selection of the most appropriate therapy based on the available literature. They are advisory rather than prescriptive; they do not encompass every reasonable diagnostic or therapeutic option, nor do they preclude the possibility of equivalent outcomes with approaches not explicitly listed. In clinical practice, final diagnostic and treatment decisions should be individualized by the treating physician, taking into account patient-specific factors and local resource availability; deviation from these guidelines is appropriate whenever it is clinically justified.

INTRODUCTION

Obstructed defecation syndrome (ODS) is a broad term referring to the inability to evacuate contents from the rectum [1]. It represents a widespread clinical problem, affecting up to 50% of patients with functional constipation, and predominantly involves middle-aged women, with a marked negative impact on patients' quality of life [1–3].

This pathological condition is usually recognized on the basis of patients' reported symptoms, which include a sensation of incomplete evacuation, excessive straining, abdominal discomfort secondary to incomplete evacuation, rectal, vaginal, and/or perineal digitation, and the need to employ enemas and/or laxatives to achieve defecation.

From a pathogenetic perspective, ODS may be associated with functional and/or pelvic-perineal anatomical alterations. The principal functional disorder causing ODS is dyssynergic defecation, which consists of uncoordinated activity of the abdominal and pelvic floor muscles, leading to paradoxical contraction of the external anal sphincter and puborectalis muscle or incomplete or absent relaxation during defecation [4, 5].

The most frequent pelvic organ anatomical alterations detectable in patients with ODS include internal rectal prolapse, in the form of rectal intussusception and/or rectocele, pelvic organ prolapse, sigmoidocele, enterocele, omentocele, peritoneocele, and solitary rectal ulcer syndrome.

These morphological anomalies frequently occur in combination and are associated, particularly in long-standing pathological conditions, with excessive perineal descent, as suggested by a case series of 141 patients with ODS evaluated using dynamic pelvic floor magnetic resonance imaging (MRI) [6]. The high prevalence of excessive perineal descent in patients with ODS may be secondary to chronic and repetitive straining and may contribute to further worsening of ODS symptoms [6–8]. In particular, during the initial phase of the disease, symptom onset may be triggered by the anatomical obstruction caused by rectal intussusception and rectocele, leading to excessive straining that, in turn, results in an initial and limited descent of the perineum. This stage may be appropriately defined as the "obstructive" phase. In more advanced stages of the disease, chronic and repetitive straining during defecation may lead to progressive weakening of the pelvic floor musculature and sagging of the perineum, which may further exacerbate symptoms, in accordance with the Laplace law [9]. In particular, a possible explanation for the association between ODS and perineal descent lies in defecatory straining, which, in healthy subjects, induces a reduction in abdominal cavity volume and, in accordance with the Laplace law, a consequent increase in intra-abdominal pressure necessary to accomplish defecation [6]. In patients with pathological perineal descent, however, straining likely induces only a change in the shape of the lower abdominal cavity, without achieving the reduction in abdominal volume required to generate the pressure increase necessary for effective defecation [6, 9].

At this stage of the disease, because a relevant pathogenetic role is played by impaired rectal propulsion due to excessive perineal descent, defecation is less accurately defined as "obstructed" and should instead be more appropriately described as "ineffective," with the resulting condition more correctly termed "ineffective defecation syndrome" (IDS) [9].

Similarly, the term "expulsive constipation" may represent a broader expression that can be used to generally describe ODS, encompassing both the initial "obstructive" phase and the later "propulsive" phase of the syndrome.

METHODS

A panel of experts was appointed by the Board of SIUCP to develop key questions, according to the PICO (patients, intervention, comparison, outcome) criteria [10–12], addressing the main topics related to the diagnosis and treatment of ODS. Subsequently, leading specialists in this field, coordinated by a central coordinator, performed a comprehensive literature search for each topic across multiple databases (MEDLINE, Scopus, Embase) in order to generate evidence-based answers to the formulated questions and to synthesize them into structured statements.

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The search strategy covered the period from July 1975 to December 2024 and was based on the following keyword combinations: "obstructed defecation syndrome and diagnosis," "obstructed defecation syndrome and endoscopy," "obstructed defecation syndrome and imaging," "obstructed defecation syndrome and ultrasound," "obstructed defecation syndrome and defecography," "obstructed defecation syndrome and magnetic resonance defecography," "obstructed defecation syndrome and manometry," "obstructed defecation syndrome and treatment," "obstructed defecation syndrome and therapy," "obstructed defecation syndrome and fibers," "obstructed defecation syndrome and physiatric assessment," "obstructed defecation syndrome and rehabilitation," "obstructed defecation syndrome and pelvic organ prolapse," "obstructed defecation syndrome and stapled transanal rectal resection," "obstructed defecation syndrome and ventral mesh rectopexy," "obstructed defecation syndrome and pelvic organ prolapse suspension," "obstructed defecation syndrome and sacrocolposuspension," "obstructed defecation syndrome and native tissue apical repair," "obstructed defecation syndrome and colectomy," "obstructed defecation syndrome and fecal diversion," "obstructed defecation syndrome and colostomy," and "obstructed defecation syndrome and rectal hyposensitivity." For all listed keyword combinations, the term "chronic constipation" was also used as an alternative to "obstructed defecation syndrome."

The literature search included case series, observational retrospective and prospective studies, randomized controlled trials (RCTs), and systematic reviews and meta-analyses (Fig. 1). Of the 412 initially eligible records, 38 duplicates were removed, and 374 studies were screened for inclusion. Among these, 72 were excluded because they consisted of case reports, conference proceedings, studies lacking abstracts, or studies addressing topics not pertinent to the review. Of the 302 full-text articles assessed for eligibility, 85 were excluded because higher-level evidence studies addressing the same topics were available. Consequently, 217 studies, comprising case series, observational retrospective and prospective studies, RCTs, and systematic reviews and meta-analyses, were included in the final analysis to provide evidence-based answers to each key question. Overall, the references of the present manuscript consisted of 221 entries, including the 217 studies identified through the literature search and 4 additional records, represented by book chapters and letters to the Editor addressing the epidemiology, pathogenesis, and clinical presentation of ODS.

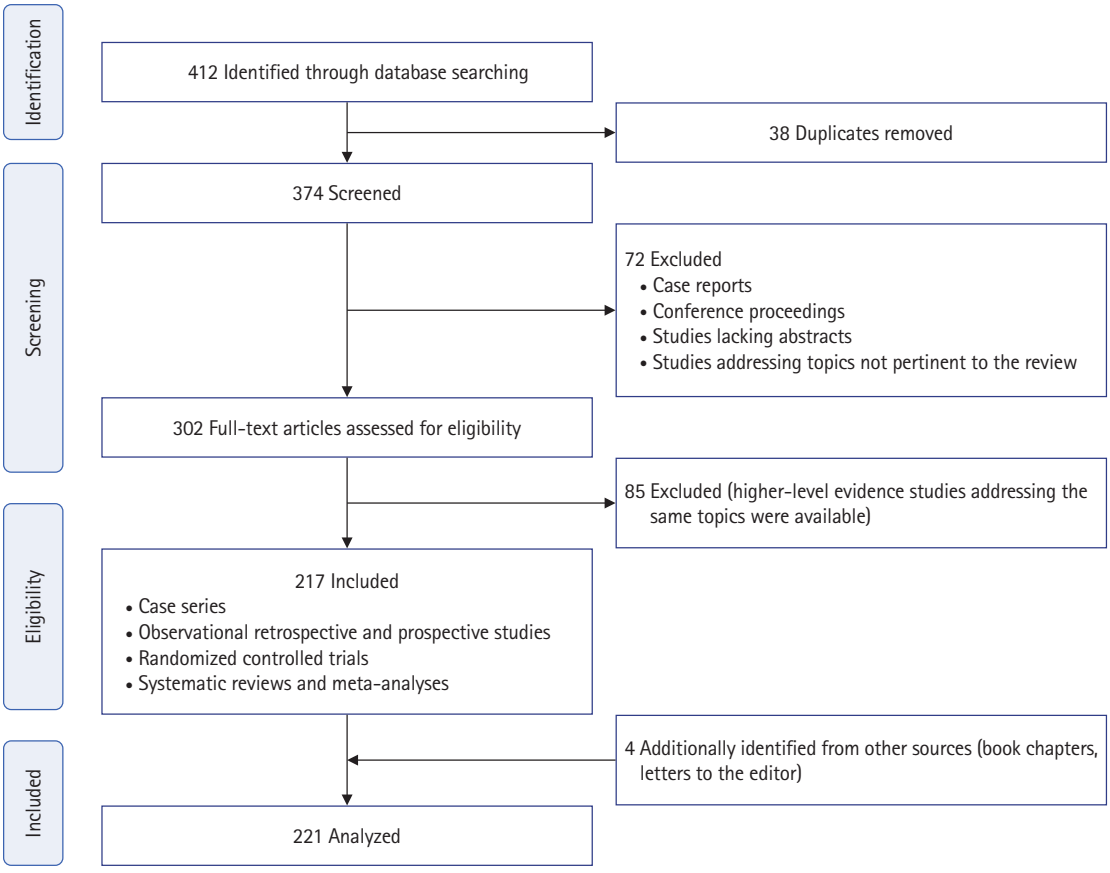

Fig. 1. PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses) flowchart.

Methodology of study analysis and statement formulation

From all included studies, results related to primary and secondary outcomes were extracted, recorded, and compared. The quality and characteristics of each study were evaluated according to the GRADE (Grading of Recommendations, Assessment, Development, and Evaluations) methodology [10–12]. Based on this grading framework, recommendations were classified as strong (grade 1) or conditional (grade 2), depending on the balance among benefits, risks, burdens, and potential costs, as well as on the level of confidence in estimates of benefits, risks, and burdens. According to the characteristics of the included studies, the quality of evidence supporting each recommendation was categorized as high, moderate, or low (Table 1). The final assignment of evidence quality for each recommendation was determined by prioritizing studies with higher methodological rigor, in accordance with the principles of evidence-based medicine. Accordingly, RCTs and meta-analyses were preferentially considered; however, in the absence of higher-level evidence, observational prospective or retrospective studies were also included. For clinically relevant topics lacking sufficient evidence, the corresponding statements were formulated based on expert panel opinion.

All clinical questions were discussed by the expert panel using the Delphi approach [10]. A total of 132 experts were invited (after excluding 3 members of the study group), and 35 accepted to participate and completed the process (100% response rate). Consensus among the experts was achieved for each statement during a single Delphi round, as all 32 items reached the predefined agreement threshold of 80%. All members of the study group and expert panel signed a written declaration stating the absence of any conflict of interest related to their participation in the development of the present guidelines. The central coordinator compiled the responses obtained and, in collaboration with the expert panel, prepared the definitive guidelines, which are presented in the current manuscript. All experts contributed to the development of these guidelines, and the manuscript was reviewed and approved by all authors.

Ethics statement

The study protocol and methods were approved by the Institutional Board of SIUCP (No. 48/2024). Based on the nature of our study representing a consensus position among experts through the Delphi method, and in compliance with the guidelines specified by Italian law, an independent ethics committee approval was not required. The research falls under the category of exempt or noninvasive research, which is not subject to mandatory independent ethics committee oversight. However, the anonymity and confidentiality of our panel members throughout the Delphi process were ensured. All participants were provided with clear information about the study's purpose and procedures, and their voluntary participation was obtained through informed consent. We also ensured strict confidentiality and anonymity during data analysis and result reporting. All participants provided informed consent for publication. All methods were carried out in accordance with relevant guidelines and regulations.

Table 1. GRADE system

Grade	Strength of recommendation	Benefit vs. Risk	Quality of studies	Implication
1A	Strong (high-quality evidence)	Benefits clearly outweigh risks and burdens or vice versa	RCTs without important limitations or overwhelming evidence from observational studies	Strong recommendation; can apply to most patients in most circumstances without reservation
1B	Strong (moderate-quality evidence)	Benefits clearly outweigh risks and burdens or vice versa	RCTs with important limitations or exceptionally strong evidence from observational studies	Strong recommendation; can apply to most patients in most circumstances without reservation
1C	Strong (low or very low-quality evidence)	Benefits clearly outweigh risks and burdens or vice versa	Observational studies or case series	Strong recommendation but may change when higher-quality evidence becomes available
2A	Conditional (high-quality evidence)	Benefits closely balanced with risks and burdens	RCTs without important limitations or overwhelming evidence from observational studies	Weak recommendation; best action may differ depending on circumstances or patients' or societal values
2B	Conditional (moderate-quality evidence)	Benefits closely balanced with risks and burdens	RCTs with important limitations or exceptionally strong evidence from observational studies	Weak recommendation; best action may differ depending on circumstances or patients' or societal values
2C	Conditional (low or very low-quality evidence)	Uncertainty in the estimates of benefits, risks, and burdens; benefits, risks, and burdens may be closely balanced	Observational studies or case series	Very weak recommendation; other alternatives may be equally reasonable

GRADE, Grading of Recommendations, Assessment, Development, and Evaluations; RCT, randomized controlled trial.

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RESULTS

Statement	Strength of recommendation
1. How to recognize obstructed defecation syndrome (ODS) and evaluate its severity?	
1-1. Among subjects with chronic constipation, patients with ODS may be recognized on the basis of reported symptoms, including straining, sensation of incomplete evacuation, manual maneuvers to facilitate defecation, and abdominal discomfort secondary to incomplete evacuation, often associated with the use of laxatives or enemas to achieve defecation.	Strong (1B)
1-2. The ODS score (ODS-S; Renzi score) and the Altomare score are valuable and useful tools for grading the severity of the syndrome. The ODS-S may be preferable because it is simpler, easier to remember, and includes symptoms that are specific to ODS, allowing more accurate identification of affected patients. In particular, a score of ≥9 represents a reliable cutoff point to discriminate between healthy subjects and true patients with ODS.	Conditional (2B)
2. How to perform the initial clinical approach in patients with ODS?	
2-1. The initial approach to patients with ODS should be based on evaluation of the primary and associated symptoms, clinical history, and physical examination, with particular attention to the abdominal and perineal regions.	Strong (1C)
2-2. In female patients with associated urinary symptoms, sexual dysfunction, or pelvic pain, a gynecological examination in the dorsal lithotomy position, performed either by a proctologist with expertise in pelvic-perineology or by a gynecologist, should be included in the physical examination. Pelvic prolapse should be evaluated and graded according to the Baden-Walker Halfway Scoring System or the Pelvic Organ Prolapse Quantification (POP-Q) system.	Strong (1C)
2-3. In patients with mixed obstructive and functional constipation symptoms, the initial diagnostic workup for ODS may include basic blood tests to screen for anemia, hypothyroidism, hypercalcemia, diabetes mellitus, and celiac disease.	Expert opinion
2-4. In the presence of alarm features, such as family history of colorectal carcinoma, progressive abdominal pain or changes in bowel habits, weight loss, iron-deficiency anemia, blood mixed with stool, or hematochezia of uncertain origin, colonoscopy is indicated.	Strong (1C)
3. In patients with ODS, what is the first-line therapeutic approach?	
3-1. In patients with ODS, the main goal of therapy is the regular and satisfactory evacuation of soft, compact stools. With this aim, the first-line therapeutic approach may consist of adoption of a high-fiber diet, often facilitated by the intake of soluble fiber supplements, in association with adequate hydration and general hygienic-behavioral measures, including regular physical activity, correct defecation posture, adequate mastication, and maximization of gastrocolic and orthocolic reflexes.	Strong (1C)
3-2. In patients showing poor response to general behavioral measures and a high-fiber diet, osmotic laxatives, including polyethylene glycol (PEG) and magnesium salt–based solutions, may be considered appropriate medical therapy.	Strong (1B)
3-3. In cases of ODS refractory to osmotic laxatives, further therapeutic options, particularly in patients with mixed functional and outlet obstruction constipation, may include stimulant laxatives such as anthraquinones, sodium picosulfate, and bisacodyl, and subsequently prokinetic and secretagogue agents such as prucalopride and linaclotide.	Conditional (2C)
4. What is the next diagnostic step in ODS patients refractory to first-line therapy?	
4-1. In patients with ODS refractory to first-line therapy, functional and imaging diagnostic tests may be considered to investigate functional or structural causes of the evacuation disorder and to guide subsequent treatment strategies.	Conditional (2B)
4-2. In patients with isolated ODS showing poor response to first-line therapy, defecography may be sufficient for adequate imaging evaluation. In contrast, in female patients with ODS and concurrent urinary symptoms, vaginal encumbrance, or signs of pelvic organ prolapse on physical examination, magnetic resonance defecography may be considered the imaging modality of choice.	Conditional (2B)
4-3. The Oxford grading system may be considered the standard reference for radiological evaluation of prolapse severity.	Expert opinion
4-4. Ultrasound assessment of rectoceles and their emptying, rectal and pelvic organ prolapse, puborectalis muscle relaxation, and perineal descent can be reliably performed and may represent an alternative imaging option in patients with isolated ODS or concomitant urogynecological symptoms.	Expert opinion
4-5. Anorectal manometry may be used to evaluate anorectal physiology and to identify potential functional mechanisms underlying ODS, such as impaired rectoanal coordination, decreased rectal sensitivity, and increased anal tone, thereby assisting in the selection of the most appropriate therapeutic strategy.	Conditional (2C)
4-6. In the context of ODS, colonic motility and transit studies may be useful in patients with concurrent symptoms suggestive of colonic dysfunction, such as lumpy or hard stools (Bristol Stool Form Scale types 1 or 2) and infrequent spontaneous bowel movements.	Conditional (2C)
5. In patients with ODS, what is the role of rehabilitation?	
5-1. In patients with pelvic floor disorders, a comprehensive physiatric evaluation focusing on pelvic, respiratory, postural, muscular, vertebral, and peripheral joint morpho-functional alterations may be considered, particularly in cases of inadequate response to first-line therapy.	Conditional (2C)

Statement	Strength of recommendation
5-2. In general, pelvic floor rehabilitation may be considered in patients with alterations in pelvic floor muscle tone, contraction, relaxation, and coordination with the osteo-muscular-ligamentous structures of the thorax, abdomen, pelvis, limbs, and spine.	Conditional (2C)
5-3. In the setting of ODS refractory to first-line therapy, rehabilitation may be considered as a therapeutic option, particularly in patients with dyssynergic defecation and in the presence of mixed functional constipation, consisting of combined anorectal and colonic motor dysfunctions.	Strong (1B)
5-4. Among rehabilitative techniques, biofeedback may currently be considered the standard treatment strategy for dyssynergic defecation.	Strong (1B)
6. In patients with ODS, what are the indications for surgical treatment?	
6-1. In patients with ODS refractory to conservative treatment, a surgical approach may be considered after exclusion or treatment of concomitant functional disorders, such as dyssynergic defecation, irritable bowel syndrome, or colonic functional disorders, in the presence of structural rectoanal abnormalities obstructing rectal evacuation, as demonstrated by defecography (using magnetic resonance imaging [MRI] or another modality). The main obstructive rectal abnormality warranting surgical treatment is rectoanal intussusception, corresponding to an Oxford grading system score ≥ 3, which may be associated with rectocele, incomplete evacuation of contrast medium, and excessive perineal descent in advanced disease stages.	Conditional (2B)
6-2. In general, surgical treatment in patients with ODS may be indicated when the following conditions are simultaneously present: (1) high symptom burden, defined as an ODS-S ≥ 9 or symptoms with significant impact on quality of life; (2) absence of concomitant functional syndromes, including dyssynergic defecation, irritable bowel syndrome, or colonic functional disorders; (3) inadequate response to medical treatment, symptom recurrence after medical therapy, or poor compliance with long-term conservative management; and (4) an Oxford grading system score ≥ 3 on defecography (using MRI or another modality), with or without associated perineal descent.	Expert opinion
7. In patients with ODS, how to choose the surgical strategy and which surgical options may be considered?	
7-1. In patients with ODS with indications for surgery, stapled transanal rectal resection (STARR) may be considered a safe and effective surgical option in the short and medium term.	Conditional (2B)
7-2. In the setting of ODS eligible for surgical treatment, minimally invasive ventral mesh rectopexy (VMR) may be considered as a surgical option, particularly in patients with concomitant impaired anal continence and enterocele.	Conditional (2C)
7-3. According to the limited available literature, no recommendation can be made regarding the use of the internal Delorme procedure in the treatment of ODS.	-
7-4. In patients with ODS eligible for surgical treatment and concomitant symptomatic anterior and/or middle compartment pelvic organ prolapse, the surgical strategy may be performed via a perineal approach (STARR combined with anterior or apical prolapse repair using native tissues), an abdominal approach (VMR combined with abdominal sacrocolpopexy [ASC] or pelvic organ prolapse suspension [POPS]), or a combined perineal and abdominal approach (STARR combined with POPS or ASC). Owing to the limited and heterogeneous available literature, it is not possible to provide specific recommendations regarding selection among these surgical options.	Expert opinion
7-5. When selecting surgical treatment for ODS, the coexistence of excessive perineal descent should be carefully considered. This condition may exacerbate symptoms by adding a rectal propulsion defect to fecal passage obstruction during defecation and, if left uncorrected, may compromise the long-term effectiveness of surgical procedures aimed at relieving the obstruction.	Expert opinion
7-6. In patients with ODS and excessive perineal descent who are candidates for surgical treatment, additional procedures aimed at reducing perineal bulging and supporting the perineal plane may be considered alongside prolapse correction, with the goal of improving long-term surgical outcomes. In this context, the transverse perineal support procedure, when combined with pelvic organ prolapse correction, may represent a promising surgical option.	Expert opinion
8. In patients with ODS, what is the role of transanal irrigation (TAI)?	
8-1. TAI represents a minimally invasive and reversible therapeutic option that may improve quality of life and reduce symptom burden in selected patients with ODS.	Conditional (2C)
8-2. TAI may be considered in patients with ODS who are refractory to conservative or surgical treatment, unfit for surgery, unwilling to undergo surgery, unable to maintain or forced to discontinue pharmacological therapy, or presenting combined symptoms of slow transit constipation and fecal incontinence, such as in severe refractory ODS. It may also be used as a bridging therapy for patients awaiting surgical intervention or diagnostic investigations.	Expert opinion
9. In patients with ODS refractory to all types of therapy, what treatment options can be considered?	
9-1. Patients with refractory mixed constipation and predominant slow transit characteristics may benefit from total colectomy with ileorectal anastomosis or subtotal colectomy with cecorectal anastomosis.	Conditional (2C)
9-2. In patients with mixed constipation and predominant slow transit features that are intractable and resistant to all therapies, fecal diversion surgery may be considered.	Conditional (2C)
9-3. In patients with severe, isolated ODS that is intractable and resistant to all therapies, and associated with significant impairment in quality of life, colostomy may be considered as a last resort.	Expert opinion

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Question 1. How to recognize ODS and evaluate its severity?

Statement 1-1.
Among subjects with chronic constipation, patients with ODS may be recognized on the basis of reported symptoms, including straining, sensation of incomplete evacuation, manual maneuvers to facilitate defecation, and abdominal discomfort secondary to incomplete evacuation, often associated with the use of laxatives or enemas to achieve defecation.
Strong recommendation based on moderate-quality evidence (grade 1B)

Statement 1-2.
The ODS score (ODS-S; Renzi score) and the Altomare score are valuable and useful tools for grading the severity of the syndrome. The ODS-S may be preferable because it is simpler, easier to remember, and includes symptoms that are specific to ODS, allowing more accurate identification of affected patients. In particular, a score of ≥9 represents a reliable cutoff point to discriminate between healthy subjects and true patients with ODS.
Conditional recommendation based on moderate-quality evidence (grade 2B)

Commonly, patients with ODS present to outpatient clinics reporting symptoms typical of chronic constipation, which may be identified according to the Rome IV criteria [13]. However, among subjects with chronic constipation, patients with ODS can be distinguished because, in addition to reporting straining, sensation of incomplete evacuation, and manual maneuvers to facilitate defecation, they usually do not describe infrequent bowel movements and instead report variable stool consistency. In contrast to other forms of functional constipation, the stimulus to defecate is generally preserved in ODS; nevertheless, the inability to evacuate rectal contents may result in numerous unsuccessful defecatory attempts, leading to frequent use of laxatives. Moreover, patients with ODS often complain of abdominal discomfort secondary to incomplete evacuation.

The use of severity scores in clinical practice may be helpful both to identify the specific syndrome and to grade disease severity. Among the various proposed scoring systems, the Cleveland Clinic Constipation Scoring System [14] has not been adequately validated and includes symptoms that are nonspecific for ODS, such as infrequent bowel movements and duration of constipation. Similarly, the KESS score [15] and the Patient Assessment of Constipation (PAC) score [16], although prospectively validated, have complex structures and address all forms of constipation; therefore, they are inappropriate for the specific evaluation of patients with ODS. The dedicated and validated score proposed by Altomare et al. [17] is structurally complex, consists of 8 items, and includes parameters such as time spent in the toilet and stool consistency, which may vary considerably within the same patient over time, are strongly influenced by diet, hydration, habits, and cultural factors, and are not specific to ODS. Furthermore, in the validation study, a cutoff value discriminating patients from controls was not reported.

The ODS-S proposed by Renzi et al. [18] is simpler and easier to remember, as it consists of 5 items, and demonstrates excellent internal consistency, construct validity, concurrent validity, and reproducibility. It is also associated with a good correlation with 36-Item Short Form Survey and shows strong discriminatory ability in distinguishing patients from controls. In particular, a score of ≥9 was identified as the optimal cutoff to differentiate healthy individuals from patients with ODS, with high sensitivity and specificity (92% and 96%, respectively).

The ODS-S has been translated and validated in several languages, including Portuguese and Arabic [19, 20], and has been applied by multiple authors, including in the urogynecological field, to assess the severity of constipation-related symptoms [21–23].

For these reasons, the expert panel recommends the use of the ODS-S (Renzi score) in clinical practice to grade disease severity and to identify true patients with ODS among individuals with chronic constipation, thereby distinguishing subjects with ODS from healthy controls.

Question 2. How to perform the initial clinical approach in patients with ODS?

Statement 2-1.
The initial approach to patients with ODS should be based on evaluation of the primary and associated symptoms, clinical history, and physical examination, with particular attention to the abdominal and perineal regions.
Strong recommendation based on low-quality evidence (grade 1C)

Statement 2-2.
In female patients with associated urinary symptoms, sexual dysfunction, or pelvic pain, a gynecological examination in the dorsal lithotomy position, performed either by a proctologist with expertise in pelvic-perineology or by a gynecologist, should be included in the physical examination. Pelvic prolapse should be evaluated and graded according to the Baden-Walker Halfway Scoring System or the Pelvic Organ Prolapse Quantification (POP-Q) system.
Strong recommendation based on low-quality evidence (grade 1C)

Statement 2-3.
In patients with mixed obstructive and functional constipation symptoms, the initial diagnostic workup for ODS may include basic blood tests to screen for anemia, hypothyroidism, hypercalcemia, diabetes mellitus, and celiac disease.
Expert opinion

Statement 2-4.
In the presence of alarm features, such as family history of colorectal carcinoma, progressive abdominal pain or changes in bowel habits, weight loss, iron-deficiency anemia, blood mixed with stool, or hematochezia of uncertain origin, colonoscopy is indicated.
Strong recommendation based on low-quality evidence (grade 1C)

The initial evaluation of patients with suspected ODS relies on medical history and physical examination, with the aims of contextualizing the clinical problem, identifying alarm features, investigating comorbidities, and hypothesizing potential etiologies.

History

Anamnesis should begin with a careful assessment of symptom onset, characteristics, and duration to define ODS severity. Associated constipation features, such as infrequent bowel movements, hard stools, abdominal pain, and bloating, suggest colonic dysfunction rather than a primary defecatory disorder, and their coexistence may complicate therapeutic decision-making. The Bristol Stool Form Scale (BSFS) is a validated instrument for assessing stool consistency and correlates with intestinal transit time [24]. Concomitant urinary and sexual dysfunctions, including urge or stress incontinence, urinary retention, vaginal bulging, and dyspareunia, should also be investigated, as they may indicate complex pelvic floor disorders.

The relevant history should include the following:

(1) Obstetric and surgical history (pelvic, abdominal, gynecological)
(2) Comorbidities (cardiovascular, neurological, autoimmune, endocrine, metabolic, psychiatric)
(3) Lifestyle (diet, hydration, physical activity, sexual history, medications such as opioids, antidepressants, anticholinergics, calcium channel blockers, and calcium supplements)
(4) Alarm features (family history of colorectal cancer, progressive bowel changes, abdominal pain, weight loss, anemia, prior colon surgery, blood in stool/hematochezia of uncertain origin)

The patient's general condition, psychological status, and compliance with long-term treatment should also be considered.

Physical examination

Abdominal examination focuses on the presence of palpable masses and assessment of diaphragmatic recruitment, as predominant costal breathing may impair the generation of adequate intra-abdominal pressure during the Valsalva maneuver [5, 6, 9]. Perianal inspection in the Sims position may reveal rectal or hemorrhoidal prolapse, dermatitis, neoplastic lesions, scars, or excessive perineal descent, and allows assessment of the perineal defense reflex [25]. Digital rectal examination provides key information on the following: (1) anal tone (hypertonicity or hypotonicity); (2) puborectalis/external sphincter voluntary relaxation (dyssynergia if absent/inadequate); (3) puborectalis phasic activity (rapid contraction) [25]; (4) puborectalis tonic activity (sustained contraction >2 seconds vs. <2 seconds) [26]; (5) fatigue (≥2 effective contractions over 10 repetitions with 10-second rest) [25]; and (6) isolability and muscular synergies with agonist/antagonist groups [26].

In women presenting with urinary or sexual dysfunction or pelvic pain, gynecological examination in the lithotomy position is indicated, with pelvic organ prolapse grading performed using either the Baden-Walker Halfway Scoring System or POP-Q systems [27]. This examination may be conducted by a proctologist or gynecologist within a multidisciplinary care setting.

Diagnostic workup

Although nonspecific, laboratory tests are useful to exclude secondary causes of constipation, including anemia, inflammatory conditions, thyroid dysfunction, hypercalcemia, diabetes mellitus, and celiac disease [28, 29]. Colonoscopy is indicated in the presence of alarm features [30–32], whereas flexible sigmoidoscopy may be considered in patients with isolated, mild hematochezia to exclude distal colorectal pathology [32, 33].

Question 3. In patients with ODS, what is the first-line therapeutic approach?

Statement 3-1.
In patients with ODS, the main goal of therapy is the regular and satisfactory evacuation of soft, compact stools. With this aim, the first-line therapeutic approach may consist of adoption of a high-fiber diet, often facilitated by the intake of soluble fiber supplements, in association with adequate hydration and general hygienic-behavioral measures, including regular physical activity, correct defecation posture, adequate mastication, and maximization of gastrocolic and orthocolic reflexes.
Strong recommendation based on low-quality evidence (grade 1C)

Statement 3-2.
In patients showing poor response to general behavioral measures and a high-fiber diet, osmotic laxatives, including polyethylene glycol (PEG) and magnesium salt–based solutions, may be considered appropriate medical therapy.
Strong recommendation based on moderate-quality evidence (grade 1B)

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Statement 3-3.
In cases of ODS refractory to osmotic laxatives, further therapeutic options, particularly in patients with mixed functional and outlet obstruction constipation, may include stimulant laxatives such as anthraquinones, sodium picosulfate, and bisacodyl, and subsequently prokinetic and secretagogue agents such as prucalopride and linaclotide.
Conditional recommendation based on low-quality evidence (grade 2C)

Before functional or imaging investigations, the initial management of ODS includes hygienic, dietary, and behavioral measures aimed at promoting regular evacuation of soft stools (Table 2). Available evidence suggests that a high-fiber diet, increased fluid intake, physical activity, appropriate defecation posture (squatting with 20–30 cm foot support), adequate mastication, avoidance of stool postponement, and enhancement of gastrocolic and orthocolic reflexes, such as consumption of a hot drink in the morning, may improve symptoms and quality of life, although the supporting data remain limited and of low quality [33–39].

Fiber supplementation appears more effective than general lifestyle measures, particularly soluble fibers, which significantly improve straining, defecatory pain, stool consistency, bowel frequency, and overall constipation symptoms compared with placebo [40]. In contrast, insoluble fibers frequently induce adverse effects, including bloating, cramping, and flatulence [40–44]. Despite these interventions, up to 80% of patients with slow transit constipation and 63% of those with outlet obstruction constipation show an insufficient response [45].

For nonresponders, osmotic laxatives, such as PEG and magnesium-based solutions, are recommended. PEG has demonstrated superiority over lactulose in RCTs for pain relief, stool frequency, and stool consistency, while magnesium salts have also shown efficacy compared with placebo, with a comparable safety profile [46, 47]. In patients unresponsive to osmotic agents, stimulant laxatives, including anthraquinones, sodium picosulfate, and bisacodyl, may be considered [48, 49].

Finally, in refractory cases, particularly those associated with slow transit constipation, prokinetic and secretagogue agents such as prucalopride (5-HT_4 agonist) and linaclotide (guanylate cyclase C agonist) may provide clinical benefit [50–53], although studies specifically addressing patients with ODS remain limited.

Table 2. Hygienic, dietary, and behavioral measures that may be useful as first-line therapy in patients with obstructive defecation syndrome

Strategy	Description
Dietary changes	A diet rich in fiber combined with increased fluid intake is essential for improving stool consistency and frequency.
Physical activity	Regular exercise and general movement support intestinal motility and pelvic floor function.
Defecation posture	Adopting a squatting position, using a 20–30-cm footstool, can facilitate optimal rectal emptying by optimizing the anorectal angle.
Behavioral habits	Proper chewing to reduce digestive load. Avoid delaying defecation when the urge is felt. Increase awareness of gastrocolic and orthocolic reflexes, which can be stimulated by a warm drink in the morning.

Question 4. What is the next diagnostic step in ODS patients refractory to first-line therapy?

Statement 4-1.
In patients with ODS refractory to first-line therapy, functional and imaging diagnostic tests may be considered to investigate functional or structural causes of the evacuation disorder and to guide subsequent treatment strategies.
Conditional recommendation based on moderate-quality evidence (grade 2B)

Statement 4-2.
In patients with isolated ODS showing poor response to first-line therapy, defecography may be sufficient for adequate imaging evaluation. In contrast, in female patients with ODS and concurrent urinary symptoms, vaginal encumbrance, or signs of pelvic organ prolapse on physical examination, magnetic resonance defecography may be considered the imaging modality of choice.
Conditional recommendation based on moderate-quality evidence (grade 2B)

Statement 4-3.
The Oxford grading system may be considered the standard reference for radiological evaluation of prolapse severity.
Expert opinion

Statement 4-4.
Ultrasound assessment of rectoceles and their emptying, rectal and pelvic organ prolapse, puborectalis muscle relaxation, and perineal descent can be reliably performed and may represent an alternative imaging option in patients with isolated ODS or concomitant urogynecological symptoms.
Expert opinion

Statement 4-5.
Anorectal manometry may be used to evaluate anorectal physiology and to identify potential functional mechanisms underlying ODS, such as impaired rectoanal coordination, decreased rectal sensitivity, and increased anal tone, thereby assisting in the selection of the most appropriate therapeutic strategy.
Conditional recommendation based on low-quality evidence (grade 2C)

Statement 4-6.
In the context of ODS, colonic motility and transit studies may be useful in patients with concurrent symptoms suggestive of colonic dysfunction, such as lumpy or hard stools (Bristol Stool Form Scale types 1 or 2) and infrequent spontaneous bowel movements.
Conditional recommendation based on low-quality evidence (grade 2C)

In patients with ODS refractory to lifestyle and dietary measures and osmotic laxatives, functional and imaging investigations are recommended to identify underlying structural or functional abnormalities and to guide therapeutic decision-making.

Functional tests

The balloon expulsion test is specific for impaired evacuation but has low sensitivity and cannot define the etiology of ODS [25, 54]. Anorectal manometry is widely used to assess anorectal physiology, allowing detection of impaired rectoanal coordination, reduced rectal sensitivity, increased anal tone, and abnormalities of rectoanal reflexes [55–57].

Defecography and MR defecography. Both techniques are fundamental for anatomical and functional assessment of defecatory disorders. They allow identification of internal and external rectal prolapse, rectocele, enterocele, cystocele, vaginal or cervical prolapse, sigmoidocele, and excessive perineal descent. A systematic review including 63 studies (7,519 barium defecographies and 668 MR defecographies) demonstrated comparable diagnostic accuracy for rectocele, enterocele, pelvic floor dyssynergia, external prolapse, and perineal descent [57]. Prospective studies have shown no significant differences between supine and sitting MRI for evaluation of perineal descent [58–60].

Defecography is more accurate than MRI for detection of rectal intussusception (57.8% vs. 37.8%; odds ratio [OR], 1.52; P = 0.009) and trapping rectoceles, whereas MRI provides superior evaluation of anterior and middle compartment prolapse and is better tolerated by patients (54.3% vs. 30.0%; OR, 1.73; P = 0.008) [57]. Advantages of MRI include multiparametric assessment, panoramic visualization, and absence of ionizing radiation [58, 59]; limitations include cost, limited availability, and the supine position, which may underestimate rectal intussusception or trapping rectoceles. Additionally, up to 9% of patients are unable to evacuate during supine MRI acquisition [61].

MRI appears preferable in women with ODS and concomitant urinary symptoms, vaginal complaints, or pelvic organ prolapse, whereas x-ray defecography may be sufficient in other clinical scenarios. The 2 modalities should be considered complementary: defecography may confirm underestimation of rectal intussusception on MRI, while MRI is preferable for comprehensive assessment of the anterior and middle compartments [58–60]. Regarding prolapse severity assessment, the Oxford grading system represents a radiological classification that grades rectal prolapse from low-grade intussusception (grades 1–2) to high-grade rectoanal intussusception (grades 3–4) and external prolapse (grade 5) [62, 63]. This system correlates with patient age, reflects the natural history of prolapse [62], and predicts outcomes of conservative treatment, as pelvic floor retraining is mainly effective in low-grade prolapse, whereas high-grade prolapse more frequently requires surgical intervention [63]. For these reasons, the expert panel recommends the Oxford grading system as the standard radiological reference.

Regarding other modalities, ultrasound can assess rectoceles, pelvic organ prolapse, puborectalis muscle relaxation, and perineal descent, providing an alternative imaging option in patients with ODS and concomitant urogynecological symptoms [64]. In suspected slow transit constipation, colonic transit studies are useful. The radiopaque marker test is the standard method, being simple, low-cost, and widely available, although it requires medication washout for 5 to 7 days. Scintigraphy and wireless pH/pressure capsule testing represent alternative approaches with shorter washout requirements [64–66]. Importantly, delayed colonic transit may also occur in the presence of fecal retention or defecatory disorders; therefore, exclusion of ODS is necessary before diagnosing isolated slow transit constipation [67–69]. Colonic manometry is rarely used and is mainly applied in pediatric constipation.

Question 5. In patients with ODS, what is the role of rehabilitation?

Statement 5-1.
In patients with pelvic floor disorders, a comprehensive physiatric evaluation focusing on pelvic, respiratory, postural, muscular, vertebral, and peripheral joint morpho-functional alterations may be considered, particularly in cases of inadequate response to first-line therapy.
Conditional recommendation based on low-quality evidence (grade 2C)

Statement 5-2.
In general, pelvic floor rehabilitation may be considered in patients with alterations in pelvic floor muscle tone, contraction, relaxation, and coordination with the osteo-muscular-ligamentous structures of the thorax, abdomen, pelvis, limbs, and spine.
Conditional recommendation based on low-quality evidence (grade 2C)

Statement 5-3.
In the setting of ODS refractory to first-line therapy, rehabilitation may be considered as a therapeutic option, particularly in patients with dyssynergic defecation and in the presence of mixed functional constipation, consisting of combined anorectal and colonic motor dysfunctions.
Strong recommendation based on moderate-quality evidence (grade 1B)

Statement 5-4
Among rehabilitative techniques, biofeedback may currently be considered the standard treatment strategy for dyssynergic defecation.
Strong recommendation based on moderate-quality evidence (grade 1B)

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Rehabilitation comprises conservative techniques aimed at improving or restoring impaired pelvic functions. The pelvic floor contributes to continence, defecation, urination, sexual activity, and reproduction, depending on the structural and functional integrity of the pelvic osteo-muscular-ligamentous system and its coordination with the spine, thorax, abdomen, and limbs [70–72]. Pelvic floor function is integrated with these regions through both mechanical interactions and autonomic nervous system pathways [72–77]. Alterations in diaphragmatic movement, abdominal muscle tone, or spinal and pelvic alignment may impair abdominal pressure gradients and reduce defecatory efficiency [6, 69–71].

A comprehensive physiatric evaluation may be useful to identify postural, respiratory, vertebral, and muscular alterations contributing to pelvic dysfunction [22, 23, 69–72, 78–82]. Rehabilitation is indicated in patients with altered pelvic muscle tone, contraction, relaxation, or coordination, particularly in cases of chronic constipation unresponsive to first-line therapies and in functional defecation disorders characterized by pelvic-abdominal discoordination and abnormal anal tone or rectal sensitivity [69–71]. Rehabilitation may also be beneficial in patients with ODS who are unfit for surgery or as part of preoperative or postoperative management. Contraindications include severe cognitive or neurological disorders, psychiatric disease, poor motivation, and major anatomic defects [78–82].

Core rehabilitation techniques include physiokinesitherapy, biofeedback, electrical stimulation, and volumetric rehabilitation, often combined with cognitive-behavioral re-education aimed at enhancing perineal awareness and adherence to lifestyle measures [69–71].

Physiokinesitherapy involves manual therapy and targeted exercises designed to optimize diaphragmatic recruitment, correct postural and joint dysfunctions, and restore coordinated pelvic muscle activity. Techniques vary widely, and evidence supporting the isolated efficacy of physiokinesitherapy in constipation remains limited [69–77, 83, 84].

Biofeedback is the most extensively studied rehabilitative approach and is considered first-line therapy for dyssynergic defecation [85–87]. Meta-analyses demonstrate a sixfold increase in treatment success compared with controls (OR, 5.86; 95% confidence interval [CI], 2.18–15.79) [85] and an 80% versus 22% success rate compared with diet or laxatives alone (risk ratio, 3.65; 95% CI, 2.17–6.13) [86]. Long-term efficacy has also been confirmed [87]. Positive predictors of response include digital evacuation, hard stools, short duration of laxative use, high resting anal pressure, positive balloon expulsion test results, strong patient motivation, and therapist expertise [88–91]. Biofeedback may also improve slow colonic transit by enhancing defecatory coordination [88].

Electrical functional stimulation delivers intracavitary electrical currents to increase pelvic muscle tone and proprioceptive awareness. Its clinical use is primarily directed toward fecal incontinence or pelvic pain, with limited evidence supporting its efficacy in constipation [92–96].

Volumetric rehabilitation aims to normalize rectal sensitivity and capacity through graded rectal distension and may be useful in rectal hyposensitivity or hypersensitivity syndromes [22, 97, 98]. However, its effectiveness in chronic constipation and ODS remains uncertain.

Question 6. In patients with ODS, what are the indications for surgical treatment?

Statement 6-1.
In patients with ODS refractory to conservative treatment, a surgical approach may be considered after exclusion or treatment of concomitant functional disorders, such as dyssynergic defecation, irritable bowel syndrome, or colonic functional disorders, in the presence of structural rectoanal abnormalities obstructing rectal evacuation, as demonstrated by defecography (using MRI or another modality). The main obstructive rectal abnormality warranting surgical treatment is rectoanal intussusception, corresponding to an Oxford grading system score ≥3, which may be associated with rectocele, incomplete evacuation of contrast medium, and excessive perineal descent in advanced disease stages.
Conditional recommendation based on moderate-quality evidence (grade 2B)

Statement 6-2.
In general, surgical treatment in patients with ODS may be indicated when the following conditions are simultaneously present: (1) high symptom burden, defined as an ODS-S ≥9 or symptoms with significant impact on quality of life; (2) absence of concomitant functional syndromes, including dyssynergic defecation, irritable bowel syndrome, or colonic functional disorders; (3) inadequate response to medical treatment, symptom recurrence after medical therapy, or poor compliance with long-term conservative management; and (4) an Oxford grading system score ≥3 on defecography (using MRI or another modality), with or without associated perineal descent.
Expert opinion

In patients with ODS, surgical intervention aims to correct anatomical abnormalities responsible for impaired stool evacuation. The most frequently observed morphological findings on defecography are rectocele and rectal intussusception; however, both abnormalities may also be detected in asymptomatic individuals, raising questions regarding their direct clinical relevance [58–60, 99–102].

Rectocele is defined as an anterior bulge of the rectal wall exceeding 2 cm from the axis of the anal canal during evacuation

[58–60]. Nevertheless, rectoceles have been reported in 80% to 93% of healthy women, irrespective of parity [99–102]. Although some authors consider only large rectoceles (≥4 cm) to be clinically relevant [99], smaller rectoceles may still be symptomatic, and rectocele size shows poor correlation with symptom severity [60, 103]. The presence of barium trapping during defecography may suggest mechanical obstruction; however, this finding is inconsistent and has been reported with wide variability (0%–100%) even in healthy subjects [99, 104–106]. Consequently, rectocele alone rarely accounts for ODS symptoms and frequently coexists with other functional or structural abnormalities, such as rectal intussusception, spastic pelvic floor, or excessive perineal descent [103, 107–109]. Rectoceles are therefore more likely to represent secondary phenomena related to chronic straining rather than primary causes of outlet obstruction [103].

The clinical significance of rectal intussusception remains debated. Although Shorvon et al. [101] demonstrated circumferential infolding in approximately 50% and mucosal infolding in about 48% of 47 healthy subjects, Palit et al. [100] identified full-thickness rectal intussusception extending into the anal canal (grades 3 and 4 according to the Oxford system) in only 20% of asymptomatic volunteers, always in association with rectocele in female subjects. Cavallaro et al. [110], in a cohort of 317 patients with symptoms of ODS-related constipation, after exclusion of subjects with irritable bowel syndrome and dyssynergic defecation, analyzed a subgroup of 65 patients and demonstrated that individuals with intra-anal intussusception had a significantly higher mean symptom score, measured using the Varma Constipation Severity Instrument obstructed defecation subscale, compared with patients with intra-rectal intussusception or no intussusception (22.0±5.1 vs. 17.9±7.5 vs. 16.6±6.9, P=0.008).

Moreover, Adusumilli et al. [63], evaluating the effectiveness of pelvic floor retraining in 64 patients with ODS and different grades of internal prolapse on defecography, reported a significant improvement in Patient Assessment of Constipation Symptoms (PAC-SYM) score (24 vs. 19, P=0.01) and an improvement in quality of life exclusively in patients with low-grade prolapse, represented by recto-rectal intussusception. These findings suggest that patients with high-grade prolapse, represented by rectoanal intussusception, may be considered for surgical treatment from the outset. Overall, according to the available literature, surgery may be considered in patients with severe ODS, defined by an ODS-S ≥9 or a marked impairment in quality of life, who are refractory to first-line medical therapy, after exclusion of colonic functional disorders such as irritable bowel syndrome and after identification and treatment of concomitant functional causes of symptoms, including dyssynergic defecation. In cases of persistent symptoms after correction of functional disorders, a surgical strategy may be reasonably supported by the presence of an "obstructive" morphological finding on defecography (using MRI or another modality), including rectoanal intussusception (Oxford grading system score ≥3), potentially associated with rectocele, incomplete evacuation of contrast medium, and excessive perineal descent, particularly in long-standing disease [6]. Excessive perineal descent may represent a distinctive feature of advanced ODS, as chronic and repetitive straining during defecation can lead to progressive weakening of the pelvic floor musculature and sagging of the perineum. This condition, in turn, may further worsen ODS symptoms because, in the presence of perineal descent, defecatory straining is likely to induce only a change in the shape of the lower abdominal cavity, without achieving the reduction in abdominal volume necessary to generate the pressure increase required for effective defecation, in accordance with the Laplace law [6, 9].

The presence of external full-thickness rectal prolapse, corresponding to a score of 5 on the Oxford grading system, represents an absolute indication for surgical treatment in patients fit for surgery, regardless of the type of associated symptoms or the degree of ODS.

Question 7. In patients with ODS, how to choose the surgical strategy and which surgical options may be considered?

Statement 7-1.
In patients with ODS with indications for surgery, stapled transanal rectal resection (STARR) may be considered a safe and effective surgical option in the short and medium term.
Conditional recommendation based on moderate-quality evidence (grade 2B)

Statement 7-2.
In the setting of ODS eligible for surgical treatment, minimally invasive ventral mesh rectopexy (VMR) may be considered as a surgical option, particularly in patients with concomitant impaired anal continence and enterocele.
Conditional recommendation based on low-quality evidence (grade 2C)

Statement 7-3.
According to the limited available literature, no recommendation can be made regarding the use of the internal Delorme procedure in the treatment of ODS.

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Statement 7-4.
In patients with ODS eligible for surgical treatment and concomitant symptomatic anterior and/or middle compartment pelvic organ prolapse, the surgical strategy may be performed via a perineal approach (STARR combined with anterior or apical prolapse repair using native tissues), an abdominal approach (VMR combined with abdominal sacrocolpopexy [ASC] or pelvic organ prolapse suspension [POPS]), or a combined perineal and abdominal approach (STARR combined with POPS or ASC). Owing to the limited and heterogeneous available literature, it is not possible to provide specific recommendations regarding selection among these surgical options.
Expert opinion

Statement 7-5.
When selecting surgical treatment for ODS, the coexistence of excessive perineal descent should be carefully considered. This condition may exacerbate symptoms by adding a rectal propulsion defect to fecal passage obstruction during defecation and, if left uncorrected, may compromise the long-term effectiveness of surgical procedures aimed at relieving the obstruction.
Expert opinion

Statement 7-6.
In patients with ODS and excessive perineal descent who are candidates for surgical treatment, additional procedures aimed at reducing perineal bulging and supporting the perineal plane may be considered alongside prolapse correction, with the goal of improving long-term surgical outcomes. In this context, the transverse perineal support procedure, when combined with pelvic organ prolapse correction, may represent a promising surgical option.
Expert opinion

In patients with ODS eligible for surgery, the choice of operative strategy depends on symptom profile and anatomical findings identified through clinical and radiological evaluation. Three main clinical scenarios may be distinguished:

(1) Isolated ODS with internal rectal prolapse and physiological perineal descent (early-stage disease).
(2) Isolated ODS with internal rectal prolapse and excessive perineal descent (advanced stage or IDS).
(3) ODS associated with urogynecological symptoms (stress urinary incontinence, vaginal bulging, and dyspareunia) and multicompartment pelvic organ prolapse with excessive perineal descent.

Isolated ODS

For isolated posterior compartment prolapse, the main surgical options include STARR, VMR, and the internal Delorme procedure. In rare cases of advanced multicompartment prolapse without urogynecological symptoms (Baden-Walker Halfway score ≥3), management should be individualized, ideally following gynecological evaluation and cough stress testing to identify occult incontinence [111].

STARR procedure

A systematic review including 24 studies (n=4,464) [112–134] confirmed STARR as a safe and effective procedure for improving ODS symptoms and quality of life [135]. Significant reductions in Wexner and Altomare scores were reported at 6 to 12 months ($P<0.001$), although outcomes tended to decline after 3 years [115, 117, 119–122, 133, 136, 137]. Median postoperative complications included fecal urgency (10%, usually transient), rectal bleeding (2.9%), pain or tenesmus (1.7%), and urinary retention (0.5%). Severe complications, such as pelvic hematoma, anastomotic dehiscence, and rectovaginal fistula, were rare [131, 135, 138–143]. Use of high-volume staplers was associated with fewer adverse events [123, 128].

Ventral mesh rectopexy

A systematic review of 14 studies (n=963) [114, 120, 144–154] demonstrated significant postoperative improvement in constipation symptoms ($P<0.001$), particularly in patients with concomitant enterocele [155]. Outcomes were poorer in patients with obesity and long-standing ODS. VMR also resulted in improvement of fecal incontinence symptoms [145, 152, 153, 156]. Overall morbidity was 8.9%, consisting mainly of minor complications [143, 147, 153]. Comparative studies reported similar short-term efficacy and morbidity compared with STARR [114, 120, 145], whereas VMR was associated with better long-term continence outcomes and lower recurrence rates [113, 145, 157, 158].

Internal Delorme procedure

Limited studies reported favorable outcomes, particularly in patients with associated fecal incontinence, with morbidity rates ranging from 4% to 12%, mainly due to bleeding, anastomotic dehiscence, or transient worsening of continence [125, 158–162]. Rare septic complications have also been described [163]. Comparative studies did not identify major differences in outcomes when compared with STARR [125, 161, 162].

Perineal descent correction

Excessive perineal descent contributes to impaired rectal propulsion in advanced stages of ODS [6, 9, 60, 164]. The transverse perineal support procedure was developed to correct perineal sagging by reinforcing the perineal body using a biologic or synthetic implant [6]. In a pilot study [6] and a subsequent multicenter trial (n=355) [165], STARR combined with transverse perineal support resulted in improved long-term outcomes without increasing postoperative morbidity or length of hospitalization. Randomized validation studies, however, are still lacking.

ODS with urogynecological symptoms

In cases of multicompartment pelvic organ prolapse, combined or sequential surgical repair of all involved compartments is generally recommended.

Anterior and apical compartment transvaginal repair

In patients with isolated cystocele, anterior colporrhaphy, using either native tissue or graft-augmented techniques, achieves success rates ranging from 40% to 88% [166, 167]. However, the use of synthetic mesh is associated with higher morbidity, including an erosion risk of approximately 11.4% [168]. For apical compartment defects, obliterative procedures are appropriate in non–sexually active women [169, 170], whereas sexually active patients may undergo sacrospinous ligament fixation or uterosacral ligament suspension, which demonstrate comparable efficacy (relative risk, approximately 1.0) and similar complication rates [165, 171, 172]. Sacrospinous ligament fixation is often preferred because of technical simplicity and shorter operative time.

Transabdominal approaches

ASC provides durable functional outcomes compared with native tissue repair, although it is associated with longer recovery and a mesh erosion risk ranging from 3.4% to 10.5% [168, 173–176]. Repeat surgery for mesh-related complications has been reported in up to 10% of cases [165]. This approach should be avoided in women planning pregnancy because of increased obstetric risk [177] and may be combined with VMR in patients with multicompartment prolapse [178]. POPS represents a minimally invasive alternative to ASC, employing a V-shaped mesh for uterine or vaginal vault suspension [179–181]. It may be combined with STARR in cases of persistent or residual rectal prolapse [182–184]. Although available data are limited, existing studies demonstrate significant improvement in urinary and ODS-related symptoms with low morbidity [181–187]. Reported advantages include preservation of sexual function, minimal risk of nerve injury, and absence of mesh erosion [184].

Overall, in cases of combined ODS and multiorgan prolapse, 3 principal surgical strategies may be considered:

(1) Perineal approach: STARR + native tissue apical/anterior repair
(2) Abdominal approach: VMR + ASC, or POPS alone if rectal prolapse is simultaneously corrected
(3) Combined approach: STARR + POPS or ASC

These procedures may be performed simultaneously or sequentially. Owing to the lack of comparative studies, current evidence does not identify a superior approach; therefore, surgical decision-making should be individualized based on surgeon expertise, multidisciplinary collaboration, and patient-specific characteristics. As excessive perineal descent is almost universally associated with multiorgan prolapse, its correction, such as through transverse perineal support, should be incorporated into surgical planning to enhance long-term functional stability [6, 9, 164].

Question 8. In patients with ODS, what is the role of transanal irrigation (TAI)?

Statement 8-1.
TAI represents a minimally invasive and reversible therapeutic option that may improve quality of life and reduce symptom burden in selected patients with ODS.
Conditional recommendation based on low-quality evidence (grade 2C)

Statement 8-2.
TAI may be considered in patients with ODS who are refractory to conservative or surgical treatment, unfit for surgery, unwilling to undergo surgery, unable to maintain or forced to discontinue pharmacological therapy, or presenting combined symptoms of slow transit constipation and fecal incontinence, such as in severe refractory ODS. It may also be used as a bridging therapy for patients awaiting surgical intervention or diagnostic investigations.
Expert opinion

TAI involves the instillation of tap water into the rectum through a balloon catheter or cone system connected to an irrigation bag, with volumes of up to 2 L, to facilitate controlled fecal evacuation [188]. In chronic constipation, TAI prevents fecal overaccumulation and accelerates colonic transit, whereas in fecal incontinence it may prevent leakage for up to 48 hours [189].

Initially developed for the management of neurogenic bowel dysfunction, TAI demonstrated significant improvement in fecal incontinence, constipation, and quality of life compared with standard bowel care [189]. Its indications have subsequently expanded to include low anterior resection syndrome, obstructed defecation, chronic constipation, and fecal incontinence of various etiologies, with favorable short- and long-term outcomes and low rates of serious complications, such as bleeding or perforation [188, 190–195].

Treatment adherence varies widely, ranging from 40% to 80% at 1-year follow-up [196, 197]. Reported reasons for discontinuation include inadequate clinical response, leakage, catheter expulsion, balloon rupture, pain, bleeding, anal fissures, device-related costs, and bureaucratic barriers to supply [198, 199].

Although ODS is frequently included in study populations evaluating TAI for defecatory disorders [187–198], evidence specifically addressing its isolated use in ODS remains limited. Nevertheless, TAI is physiologically rational in patients with evacua-

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tory dysfunction and preserved colonic transit, as its effectiveness depends on the presence of normally formed stools, which are typically impaired in slow transit constipation but preserved in anorectal functional disorders [198].

According to expert consensus, TAI may be considered in patients with ODS who are refractory to conservative or surgical therapy, unfit or unwilling to undergo surgery, unable to continue pharmacological treatment, or presenting combined symptoms of slow transit constipation and fecal incontinence. It may also serve as a temporary bridging treatment while awaiting surgery or further diagnostic evaluation.

In summary, TAI represents a minimally invasive and reversible therapeutic option that may reduce symptom burden and improve quality of life in selected patients with ODS. Appropriate patient education, structured training, and regular follow-up are essential to ensure adherence and optimize clinical outcomes [187–200].

Question 9. In patients with ODS refractory to all types of therapy, what treatment options can be considered?

Statement 9-1.
Patients with refractory mixed constipation and predominant slow transit characteristics may benefit from total colectomy with ileorectal anastomosis or subtotal colectomy with cecorectal anastomosis.
Conditional recommendation based on low-quality evidence (grade 2C)

Statement 9-2.
In patients with mixed constipation and predominant slow transit features that are intractable and resistant to all therapies, fecal diversion surgery may be considered.
Conditional recommendation based on low-quality evidence (grade 2C)

Statement 9-3.
In patients with severe, isolated ODS that is intractable and resistant to all therapies, and associated with significant impairment in quality of life, colostomy may be considered as a last resort.
Expert opinion.

Several studies suggest that patients with isolated slow transit constipation resistant to medical therapy may benefit from total or subtotal colectomy with, respectively, ileorectal or cecorectal anastomosis [201–211]. Other studies indicate that, in patients with slow transit constipation refractory to all available therapies, fecal diversion surgery may be considered as the last available option [212–217].

Based on the results of these studies, it may be argued that in cases of intractable mixed constipation with predominantly slow transit features, both colonic resective surgery, as a first option, and diversion surgery, as a second option, may be considered.

Unfortunately, literature lacks studies specifically evaluating the effectiveness of rescue procedures in patients with intractable isolated ODS not associated with slow transit constipation. However, in agreement with expert opinion, in patients with severe, intractable, isolated ODS resistant to all other therapies and with significant impairment in quality of life, fecal diversion surgery, in the form of colostomy, may be considered as a last resort.

DIAGNOSTIC-THERAPEUTIC ALGORITHM

Based on the proposed statements, a diagnostic-therapeutic algorithm may guide clinicians in the management of patients with ODS or IDS. Diagnosis begins with confirmation of functional constipation according to Rome IV criteria, followed by assessment using the ODS-S, in which a score of ≥9 strongly suggests disease and correlates with impaired quality of life and the need for treatment.

Initial evaluation includes a detailed medical history, assessment using the BSFS, continence scoring, and physical examination with digital rectal examination and the puborectalis contraction test. In women, gynecological evaluation is recommended when anterior or middle compartment symptoms are present. Colonoscopy is indicated in the presence of alarm features, such as anemia, weight loss, altered bowel habits, or family history of colorectal cancer or polyps, whereas rectosigmoidoscopy is reasonable in asymptomatic patients, particularly those older than 50 years. Laboratory tests, including complete blood count, electrolytes, thyroid hormones, and celiac screening, are warranted when stool volume and frequency are reduced, suggesting a mixed constipation pattern combining functional slow transit and obstructive components.

After exclusion of secondary causes, first-line therapy consists of lifestyle and dietary modification, followed by osmotic laxatives. Patients with persistent symptoms or poor compliance after 3 to 6 months of conservative management should undergo instrumental evaluation, including x-ray or MR defecography, anorectal manometry, and colonic transit studies in cases of suspected mixed constipation. The following 4 major diagnostic patterns may emerge (Fig. 2).

Dyssynergic defecation

This condition requires a comprehensive physiatric evaluation and pelvic floor rehabilitation with biofeedback. If symptoms persist, second-line laxatives or TAI may be considered, particularly when slow transit constipation coexists. Persistence of symptoms despite functional improvement warrants further evaluation for coexisting slow transit or pelvic organ prolapse (Fig. 3).

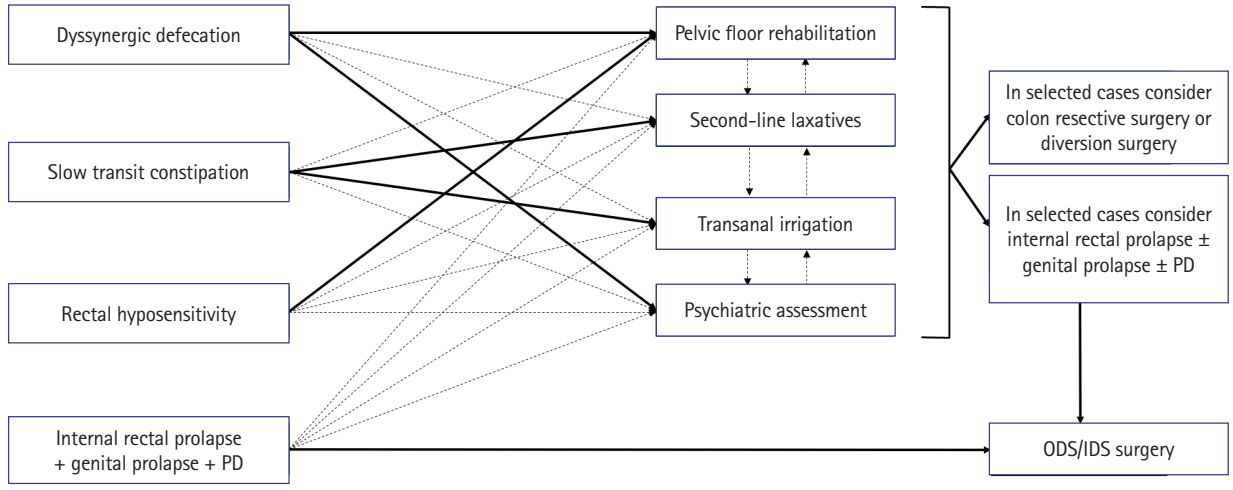

Fig. 2. Main isolated or combined pathological instrumental findings in obstructed defecation syndrome (ODS) and ineffective defecation syndrome (IDS), and possible therapeutic options in patients poorly responsive to first-line therapy. PD, perineal descent.

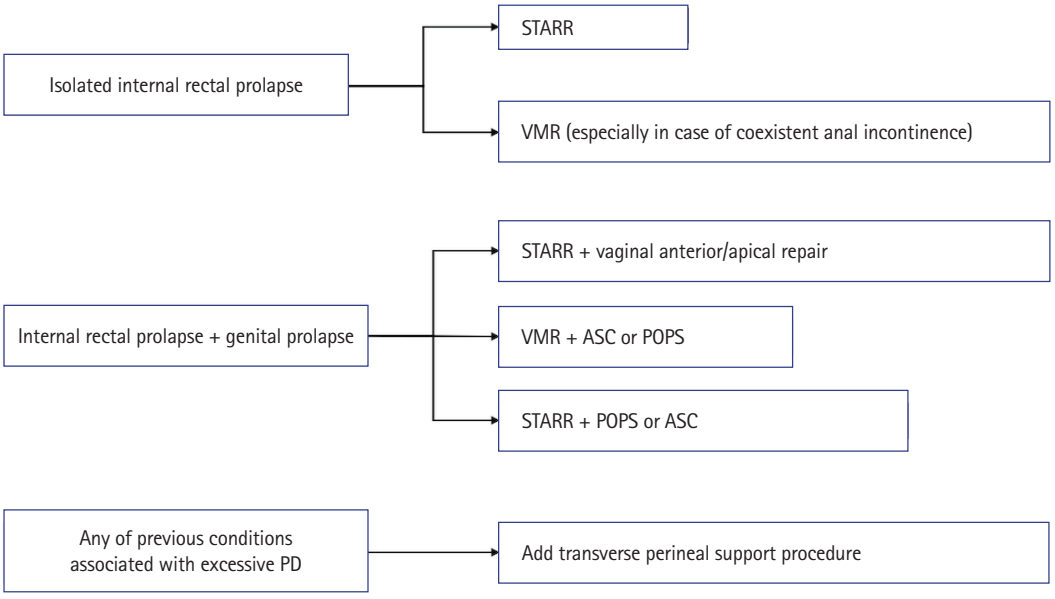

Fig. 3. Surgical options for patients with obstructed or ineffective defecation syndrome associated with internal rectal prolapse, possibly combined with genital prolapse and excessive perineal descent (PD). STARR, stapled transanal rectal resection; VMR, ventral mesh rectopexy; ASC, abdominal sacrocolpopexy; POPS, pelvic organ prolapse suspension.

Slow transit constipation

Physiatric evaluation may be considered on a case-by-case basis. In cases of failure of first-line therapy, second-line laxatives may be introduced, while TAI may be considered for refractory or noncompliant patients. If these measures are unsuccessful, colonic resection or, as a last resort, fecal diversion may be considered in patients with predominant functional constipation (ODS-S <9), and psychiatric support may be useful prior to surgery. In patients with severe obstructive symptoms (ODS-S ≥ 9), treatment of any associated pelvic organ prolapse should be considered.

Rectal hyposensitivity

Defined according to the London classification [57], rectal hyposensitivity may be associated with neurological or structural conditions, such as diabetes, Parkinson disease, spinal trauma, or childbirth injury [218]. Risk factors include advanced age, male sex, depression, and irritable bowel syndrome with constipation [219]. Management parallels that of associated syndromes and emphasizes rehabilitation, potentially including volumetric training and electrostimulation, while excluding megarectum, which may require resective surgery.

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Pelvic organ prolapse

In mild cases with limited impact on quality of life, nonoperative management is preferred. In the presence of coexisting dyssynergia, rehabilitation is recommended, whereas TAI may be considered when slow transit constipation is also present. Persistent symptoms after conservative management may warrant psychiatric evaluation and, if necessary, surgical treatment. In the absence of pathological findings, conservative therapy with diet and laxatives should be continued, with reassessment or gastroenterological or psychiatric consultation as appropriate.

In ODS associated with pelvic organ prolapse (Fig. 3), exclusion of irritable bowel syndrome, psychiatric disorders, and dyssynergic defecation is essential. After appropriate exclusion and management, surgery may be indicated in patients with severe symptoms, defined as an ODS-S ≥9 or severely impaired quality of life, and an Oxford grading system score ≥3. External full-thickness rectal prolapse (grade 5) represents an absolute indication for surgical treatment.

In isolated internal rectal prolapse, STARR is preferred in patients with preserved continence, whereas VMR is indicated when continence is impaired. In both cases, correction of perineal descent, such as through the transverse perineal support procedure, is advisable. Laparoscopic assistance during STARR should be considered in the presence of enterocele. Persistent or recurrent symptoms may be managed with TAI and, ultimately, fecal diversion if necessary.

For combined posterior and anterior/middle compartment prolapse, surgical options include the following: (1) transperineal approach (STARR + native tissue repair); (2) transabdominal approach (minimally invasive VMR + ASC or POPS); or (3) combined approach (STARR + POPS or ASC). POPS alone may be sufficient if rectal prolapse reduction is achieved; otherwise, STARR should be added. Correction of coexisting perineal descent may also be considered. Persistent or recurrent disease, as well as patients unfit or unwilling to undergo surgery, may benefit from TAI, vaginal pessaries, or fecal diversion.

Surgical procedures for anterior or middle compartment prolapse should be reserved for women without major comorbidities who wish to preserve sexual function and vaginal patency; otherwise, obliterative surgical procedures may be considered.

ARTICLE INFORMATION

Conflict of interest

Adolfo Renzi, Pasquale Talento, Luigi Marano, and Antonio Brillantino are editorial board members of this journal, but were not involved in the peer reviewer selection, evaluation, or decision process of this article. No other potential conflict of interest relevant to this article was reported.

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