

# Obstructed defaecation syndrome: European consensus guidelines on the surgical management

A. Picciariello<sup>1</sup>\*, P. R. O'Connell<sup>2</sup>, D. Hahnloser<sup>3</sup>, G. Gallo<sup>4</sup>, A. Munoz-Duyos<sup>5</sup>, O. Schwandner<sup>6</sup>, P. Sileri<sup>7</sup>, G. Milito<sup>8</sup>, S. Riss<sup>9</sup>, P. A. Boccasanta<sup>10</sup>, G. Naldini<sup>11</sup>, A. Arroyo<sup>12</sup>, F. de laPortilla<sup>13</sup>, P. Tsarkov<sup>14</sup>, B. Roche<sup>15</sup>, C. Isbert<sup>16</sup>, M. Trompetto<sup>17</sup>, A. d'Hoore<sup>18</sup>, K. Matzel<sup>19</sup>, E. Xynos<sup>20</sup>, L. Lundby<sup>21</sup>, C. Ratto<sup>22</sup>, E. Consten<sup>23</sup>, A. Infantino<sup>24</sup>, Y. Panis<sup>25</sup>, G. Terrosu<sup>26</sup>, E. Espin<sup>27</sup>, J.-L. Faucheron<sup>28</sup>, A. Guttadauro<sup>29</sup>, M. Adamina<sup>30</sup>, P. A. Lehur<sup>31</sup> and D. F. Altomare<sup>1</sup>

<sup>1</sup>Department of Emergency and Organ Transplantation, University Aldo Moro of Bari, Bari, Italy

<sup>2</sup>Centre for Colorectal Disease, St Vincent's University Hospital, University College Dublin, Dublin, Ireland

<sup>3</sup>Department of Visceral Surgery, University Hospital Lausanne, Lausanne, Switzerland

<sup>4</sup>Department of Medical and Surgical Sciences, University of Catanzaro, Catanzaro, Italy

<sup>5</sup>Department of General Surgery, Colorectal Unit, Hospital Universitari MútuaTerrassa, Terrassa, Barcelona, Spain

<sup>6</sup>Department of Proctology, Krankenhaus Barmherzige Brüder, Regensburg, Germany

<sup>7</sup>Department of Surgery, Università Vita Salute San Raffaele, Milano, Italy

<sup>8</sup>Department of Surgery, Tor Vergata University, Rome, Italy

<sup>9</sup>Department of Surgery, Division of General Surgery, Medical University Vienna, Vienna, Austria

<sup>10</sup>Istituto Humanitas Gavazzeni & Castelli, Proctology and Perineology Surgical Unit, Bergamo, Italy

<sup>11</sup>Proctology and Pelvic Floor Clinical Centre, Cisanello University Hospital, Pisa, Italy

<sup>12</sup>Department of General Surgery, Colorectal Unit, Elche University Hospital, Miguel Hernández University, Alicante, Spain

<sup>13</sup>Gastrointestinal Surgery Department, Coloproctology Unit, Virgen del Rocío University Hospital, Seville, Spain

<sup>14</sup>I. M. Sechenov First Moscow State Medical University (Sechenov University), Clinic of Coloproctology and Minimally Invasive Surgery, Moscow, Russia

<sup>15</sup>Division of Digestive Surgery, Proctology Unit, University Hospitals of Geneva, Geneva, Switzerland

<sup>16</sup>Department of General, Gastrointestinal and Colorectal Surgery, Amalie Sieveking Hospital, Hamburg, Germany

<sup>17</sup>Department of Colorectal Surgery, Santa Rita Clinic, Vercelli, Italy

<sup>18</sup>Department of Abdominal Surgery, UZ Leuven, Leuven, Belgium

<sup>19</sup>Chirurgische Klinik, Universität Erlangen, Erlangen, Germany

<sup>20</sup>Department of Surgery, Creta Interclinic Hospital of Heraklion, Heraklion, Greece

<sup>21</sup>Department of Surgery, Aarhus University Hospital, Aarhus, Denmark

<sup>22</sup>Proctology Unit, Fondazione Policlinico Universitario 'A. Gemelli' IRCCS, Rome, Italy

<sup>23</sup>Department of Surgery, University Medical Centre Groningen, Groningen, the Netherlands

<sup>24</sup>Department of Surgery, General Surgery Unit, Santa Maria dei Battuti Hospital, Pordenone, Italy

<sup>25</sup>Department of Colorectal Surgery, Beaujon Hospital, Assistance Publique-Hôpitaux de Paris, Université Paris VII, Clichy, France

<sup>26</sup>General Surgery and Transplantation Unit, Department of Medicine, University of Udine, Udine, Italy

<sup>27</sup>Department of Surgery, Hospital Universitari Vall d'Hebrón, Barcelona, Spain

<sup>28</sup>Department of Surgery, Colorectal Unit, Michallon University Hospital, Grenoble, France

<sup>29</sup>General Surgery Department, University of Milano-Bicocca, Istituti Clinici Zucchi, Monza, Italy

<sup>30</sup>Department of Surgery, Cantonal Hospital Winterthur, Winterthur, Switzerland

<sup>31</sup>Coloproctology Unit, Ospedale Regionale di Lugano, Lugano, Switzerland

\*Correspondence to: Department of Emergency and Organ Transplantation, University Aldo Moro of Bari, Bari, Italy (e mail: arcangelopicciariello@gmail.com)

## Introduction

Obstructed defaecation syndrome (ODS) is a distressing condition which, despite its benign prognosis, can severely affect patients' quality of life (QoL)<sup>1</sup>. Multiple functional, anatomical, and psychological factors contribute to the syndrome, and surgical treatment remains controversial because unsatisfactory outcomes are frequently reported<sup>2</sup>. The frequency of unsatisfactory results following surgical intervention is reflected in the multitude of surgical options that have been proposed, including different transabdominal, transanal, transperineal, and transvaginal procedures<sup>3</sup>.

The aim of this study was to develop a European e-consensus to establish a diagnostic-therapeutic algorithm to assist colorectal surgeons in clinical decision-making when treating ODS.

## Methods

A panel of European colorectal surgeons belonging to the European Society of Coloproctology were invited to take part in this modified Delphi method e-consensus. The experts were selected on the basis of their scientific contribution and clinical experience in the field of pelvic floor functional disorders.

The consensus was conducted in two rounds between May and July 2020. Owing to the COVID-19 pandemic, an e-consensus rather than a conventional meeting was organized. A working group undertook a comprehensive literature review of all published papers, including trials, open studies, meta-analyses, and systematic reviews, focusing on the surgical management of obstructed defaecation in order to establish the key statements and appropriate questions. The search was performed on

### Lay summary

Clinical decision-making in the treatment of patients with obstructed defaecation remains controversial and no international guidelines have been provided so far. This study reports a consensus among European opinion leaders on the management of obstructed defaecation in different possible clinical scenarios.

MEDLINE using the keywords 'obstructed defecation', 'rectocele', 'rectal intussusception', 'constipation', and included articles of interest indexed before May 2020.

During the first round, 20 statements were proposed and grouped in three sessions: diagnostic work-up, surgical treatment, and follow-up of ODS. Each statement was rated by the experts using a score ranging from 1 to 4 (1, full agreement; 2, agreement; 3, weak agreement; 4, disagreement). A separate section for comments was included in the survey. Statements were classified into three levels of appropriateness: appropriate, uncertain, and inappropriate, according to the percentage agreement. A statement was considered appropriate when the rate of full agreement exceeded 75 per cent, or the sum of rates of full agreement and agreement was 80 per cent or higher. The statement was considered inappropriate when the rate of disagreement was greater than 75 per cent or the sum of rates of disagreement and weak agreement was 80 per cent or higher. All other possible combinations of agreement indicated uncertainty. Definitive achievement of consensus was obtained through a modified RAND/University of California Los Angeles Appropriateness methodology<sup>4</sup>. Following the outcome of the results of the first round and on the basis of the comments received, a second round was structured that included seven further questions. Finally, a diagnostic and therapeutic pathway for the management of ODS was proposed.

## Results

From the panel of 40 European surgeons, 31 surgeons from 12 European countries agreed to participate.

Of 20 statements proposed in the first round, 10 were assigned as appropriate (2 in diagnostic work-up, 5 in surgical treatment, and 3 in follow-up session), 9 were uncertain (2 in diagnostic work-up, 7 in surgical treatment session), and one in the surgical treatment session was inappropriate (Tables 1–3).

Statements in which consensus was not achieved in the first round were explored with further questions (2 regarding diagnostic work-up and 5 on surgical treatment statements) (Table 4). An algorithm based on these guidelines is presented in Fig. 1.

## Discussion

Surgical treatment of obstructed defaecation remains a very controversial issue as it cannot be standardized easily owing to the variety of possible clinical scenarios arising from the different associations between the anatomical, functional, and sometimes psychological factors involved.

The present study attempted to fill the void represented by the lack of clear and internationally shared guidelines on ODS

treatment, with consensus being obtained by well recognized opinion leaders in pelvic floor surgery all over Europe. According to the criteria adopted to establish a clear consensus among the panellists, it should be noted that only 10 of the 20 items were deemed appropriate, 9 were uncertain, and one was inappropriate, confirming once again the lack of general agreement on several aspects of the management of ODS.

As improvement in QoL remains the main outcome for this functional disease, the introduction of a disease-specific QoL questionnaire, in combination with an ODS severity index for use during the preoperative and postoperative evaluation, is advisable.

A snapshot of the literature clearly shows that good outcomes are reported both after a transanal approach and an abdominal laparoscopic or robotic approach<sup>5–7</sup>. However, it should be noted that the surgeon's attention is often focused on the main anatomical defect revealed by imaging<sup>8</sup>, with frequent underestimation of other possible factors involved in this complex syndrome. In fact, correction of the anatomical defect (rectocele or rectal internal prolapse) does not necessarily correlate with improvement in patients' QoL<sup>9</sup>. This is sometimes explained by the observation that surgery to correct anatomical defects in a single compartment of the pelvic floor could in turn lead to exposure of further functional disorders in the same or other compartments (for example, transanal treatment of an internal prolapse may lead to faecal urgency or incontinence<sup>10</sup>).

Analysis of the consensus obtained is summarized in the management algorithm shown in Fig. 1. The functional condition of the anal sphincter drives the possible surgical or non-surgical options. In the presence of pelvic floor dyssynergia, surgery is discouraged by all the panellists. The transanal approach is believed to be inappropriate if anal sphincter function is poor because of the risk of further deterioration in anal continence, and ventral rectopexy (VRP) is preferred, with full agreement.

The reliability of VRP is not yet supported by robust RCT data, as recently underlined<sup>11</sup>. Only one retrospective paper and one RCT (in a selected cohort of elderly patients) have compared stapled transanal rectal resection (STARR) with VRP, and one study of STARR versus Delorme operation has been published<sup>12–14</sup>. Nevertheless, a clear shift from STARR to VRP has been documented in a recent survey<sup>3</sup> among European opinion leaders in pelvic floor surgery.

An Italian consensus from 2012, which focused on the surgical treatment of ODS, concluded that none of surgical procedures proposed has been identified as a 'gold standard'. The consensus highlighted the efficacy (taking into account the potential risk associated with the stapling procedure) of STARR in patients who did not respond to biofeedback, and reported uncertain outcomes after VRP<sup>15,16</sup>. Nevertheless, it should be noted that 66 of 81

**Table 1 Diagnostic statements and experts' agreement**

Statements	Experts' answers				Agreement (%)	Expert opinion
	FA	A	WA	D		
In diagnostic assessment, the use of a scoring system to assess the severity of symptoms is recommended	21	10	0	0	82	Appropriate
In the diagnostic work-up, preoperative anal manovolumetry is mandatory	14	8	7	0	50	Uncertain
Among diagnostic imaging, dynamic proctography with vaginal/bladder and intestinal contrast medium should be preferred	21	9	1	0	97	Appropriate
Anal sphincter/pelvic floor function (non-relaxing—normal tone—hypotonic) must be evaluated to choose between a transanal or transabdominal approach	13	8	6	4	50	Uncertain

FA, full agreement; A, agreement; WA, weak agreement; D, disagreement.

**Table 2 Management statements and experts' agreement**

Statements	Experts' answers				Agreement(%)	Expert opinion
	FA	A	WA	D		
In case of non-relaxing/hypertonic pelvic floor muscle without major defaecatory abnormalities (rectocele and/or rectal intussusception), biofeedback/pelvic floor retraining is the first choice	28	2	1	0	89	Appropriate
In case of non-relaxing/hypertonic pelvic floor muscle with major defaecatory abnormalities, (rectocele and/or rectal intussusception), sphincter spasm should be treated before surgery	20	6	1	4	82	Appropriate
In case of normal anal sphincter function, and the patient is affected by rectal intussusception without rectocele and without enterocele, a perineal approach is preferred	10	7	4	10	50	Uncertain
In case of normal anal sphincter function, and the patient is affected by rectal intussusception with rectocele and/or enterocele, an abdominal approach is preferred	15	9	6	1	82	Appropriate
In case of ventral rectopexy, a resorbable mesh should be preferred	8	4	9	10	64	Uncertain
In case of ventral rectopexy, a laparoscopic approach should be preferred	26	4	1	0	82	Appropriate
Redo VRP should be considered in case of failure of previous VRP	7	12	8	4	64	Uncertain
In case of poor anal sphincter function, in a patient with rectal intussusception and with rectocele and/or enterocele, an abdominal approach should be preferred	19	11	1	0	100	Appropriate
Irrespective of anal sphincter function in patients affected by large rectocele without rectal intussusception, a perineal approach should be preferred	12	9	7	3	54	Uncertain
Direct rectocele repair should be performed with use of a mesh	2	3	7	19	82	Inappropriate
In patients with ASA grade III, a perineal approach should be preferred, irrespective of the aetiology of ODS	4	13	5	9	57	Uncertain
In patients older than 70 years, a perineal approach should be preferred, irrespective of the aetiology of ODS	4	4	7	16	75	Uncertain
In patients with a BMI above 30kg/m <sup>2</sup> , a perineal approach should be preferred, irrespective of the aetiology of ODS	2	5	11	13	77	Uncertain

FA, full agreement; A, agreement; WA, weak agreement; D, disagreement; ODS, obstructed defaecation syndrome; VRP, ventral rectopexy.

**Table 3 Follow-up statements and experts' agreement**

Statements	Experts' answers				Agreement (%)	Expert opinion
	FA	A	WA	D		
In the follow-up period, the outcome should be based on patient satisfaction	12	17	2	0	93	Appropriate
In case of persisting ODS symptoms, an ODS score should be recalculated	28	2	1	0	89	Appropriate

FA, full agreement; A, agreement; WA, weak agreement; D, disagreement; ODS, obstructed defaecation syndrome.

Table 4 Second round questions and experts' agreement

Questions	Answers	Agreement(%)
Use a scoring system to assess the severity of symptoms is recommended by 100 per cent of the panel. Which score do you prefer?	Agachan/Wexner CCS	13
	Altomare ODS score	77
	Renzi ODS score	0
	Others	10
In the diagnostic work-up, preoperative anal manovolumetry is mandatory <i>only</i> in case of	Faecal incontinence	16
	Non-relaxing puborectalis muscle	3
	In both previous situations	68
	Never	13
Concerning anal sphincter function and surgical choice, patients with ODS and some degree of faecal incontinence should be preferably treated by	Perineal route	10
	Transabdominal approach	68
	Combined	3
	Two-step surgical approach	19
In patients with normal anal sphincter function affected by rectal intussusception <i>without</i> rectocele and <i>without</i> enterocele, which treatment is preferred?	Ventral rectopexy	58
	STARR	13
	TRANSTAR	10
	Internal Delorme	19
In case of ventral rectopexy	Resorbable meshes are better	23
	Non-resorbable meshes are better	77
In case of failure of previous ventral rectopexy, which operation is to be preferred?	Redo ventral rectopexy	71
	STARR	16
	TRANSTAR	0
	Transvaginal repair	13
If a perineal approach is preferred to treat a large rectocele <i>without</i> rectal intussusception, which approach is preferred?	Rectocele repair by anterior perineal incision	36
	Rectocele repair by vaginal approach	48
	Rectocele repair by transanal approach (STARR/TRANSTAR)	16

CCS, Clevelan Clinic Score; ODS, obstructed defaecation syndrome; STARR, stapled transanal rectal resection.

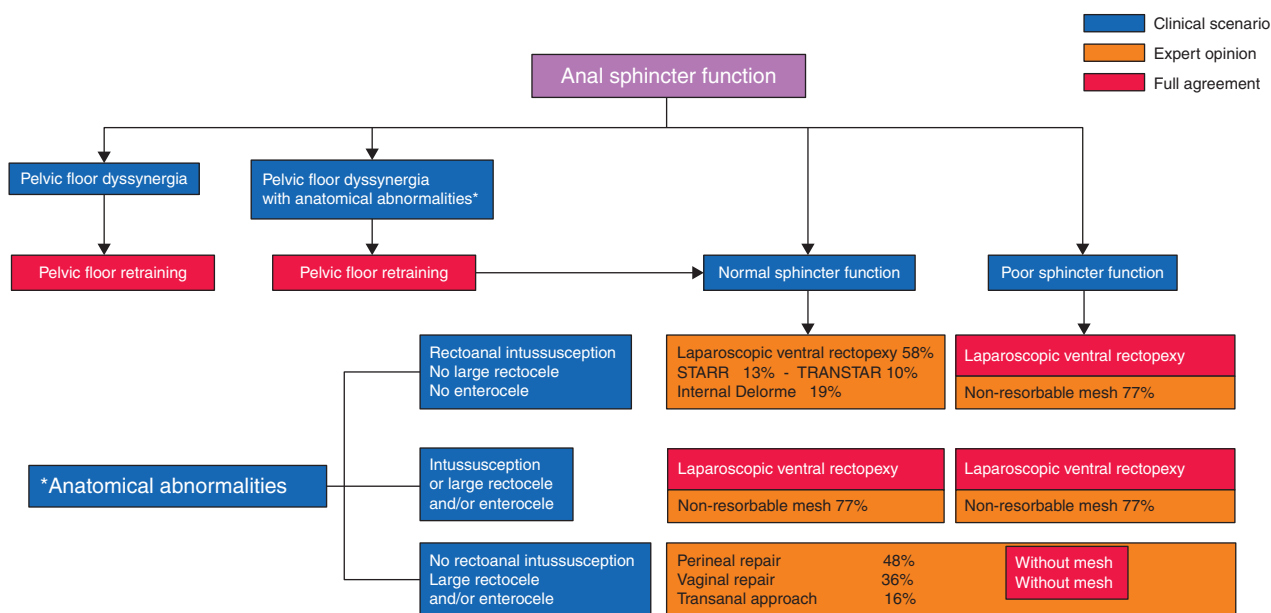


Fig. 1 Algorithm for the management of obstructed defaecation syndrome based on e-consensus

STARR, stapled transanal rectal resection; TRANSTAR.

papers on VRP and ODS that were listed in PubMed in May 2020 were published after that report.

In the absence of international guidelines on the management of ODS, the present e-consensus-based algorithm can help colorectal surgeons in decision-making relating to most of the possible clinical scenarios encountered in these patients.

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