UNIVERSITÄTSmedizin.
MAINZ

Surgical options and indications in slow transit constipation and outlet obstruction

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Chronic constipation - Definition

Pragmatic definition

- Difficult, unsatisfactory or infrequent defecation

Prevalence

- 14% in meta-analysis
- 6% in a recent American survey of nearly 90000

Pohl et al. Therapeutic management of chronic constipation. Expert Opinion Statement on behalf of the Swiss Society of Gastroenterology. 2022

Chronic constipation - Differentiation

- **Functional constipation**
  - Slow transit constipation
- **Morphological defecatory disorder**
  - Rectocele
  - Intususception
  - Cul- de-Sac

Surgical options in functional constipation and morphological defecatory disorder

Bharucha and Lacy. Gastroenterology 2020; 158:1232–1249.

Slow transit constipation - Diagnostics

- Physical examination (hypothyroidism, abdominal mass)
- Colonoscopy
  --> high-fiber diet or laxatives

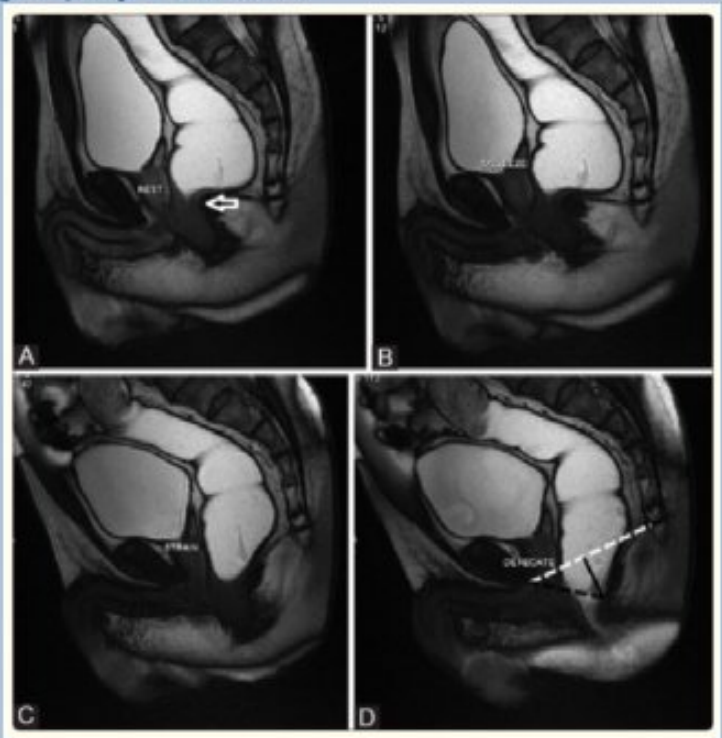
Most important: Exclusion of defecatory disorder

- → 68% of constipation might be explained by defecatory disorder
  - Anoretal manometry: detection of decreased propulsive force or paradoxical contraction
  - Ballon expulsion test: >90% normal in people with rectocele/enterocele
  - MR defacography

Bharucha and Lacy. Gastroenterology 2020; 158:1232–1249.

Slow transit constipation - Diagnostics

MR defecography Normal



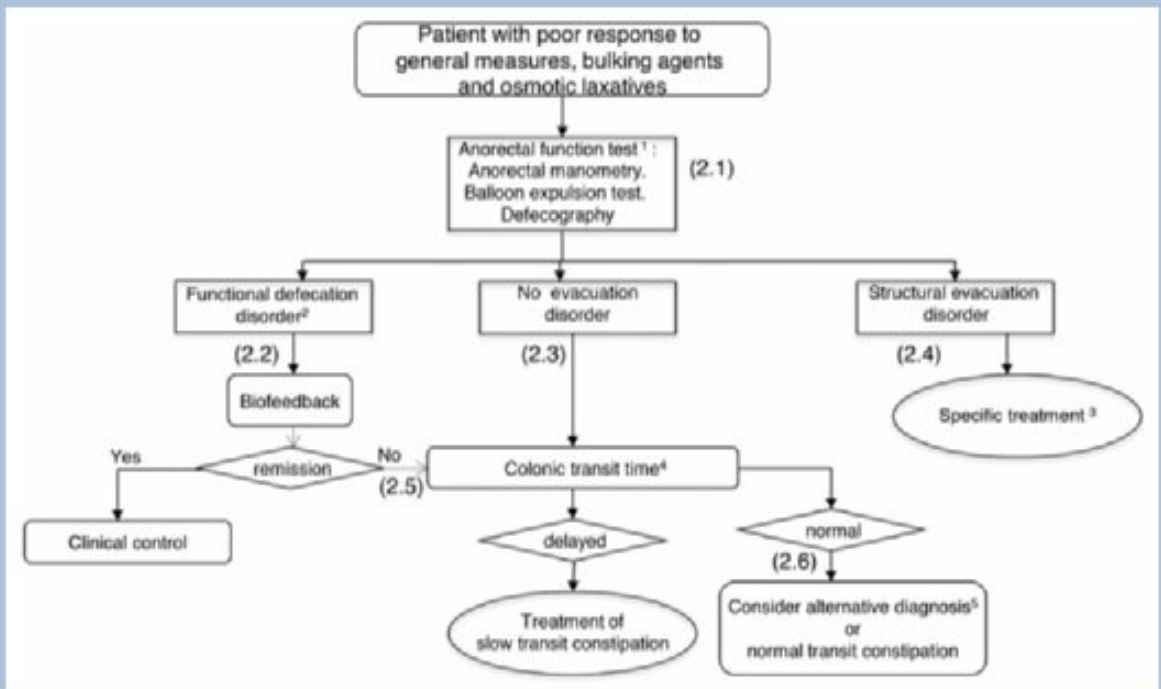
- - - - **Pubococcygeal line**

- - - - **H line**
corresponding to anterio-posterior dimension of hiatus

-------- **M line**
perpendicular distance between pubococcygeal line and posterior anorectal junction

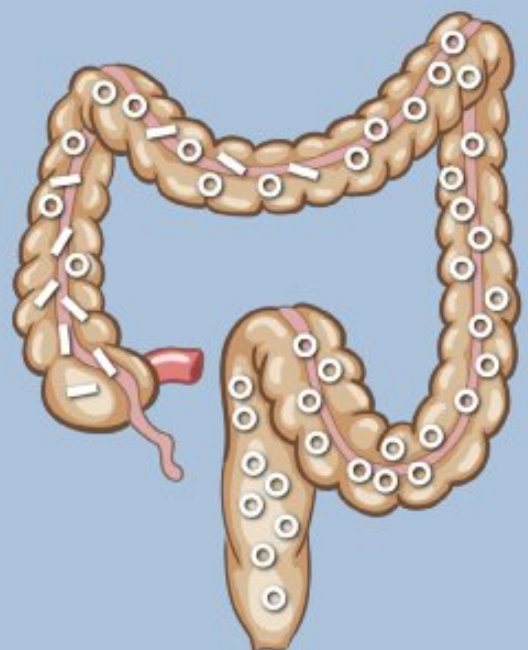
Thapar et al: DOI: 10.4103/0971-3026.150134

Slow transit constipation - Diagnostics



Pohl et al. Therapeutic management of chronic constipation. Expert Opinion Statement on behalf of the Swiss Society of Gastroenterology. 2022

Slow transit constipation - Diagnostics



Slow transit constipation - Diagnostics

Müller M et al. Am J Physiol Gastrointest Liver Physiol318: G361–G369,

Slow transit constipation - Treatment

Surgical treatment options, both resecting and non-resecting, may be considered for selected patients if **all other conservative treatments fail** to improve the patient's condition and quality of life

Pohl et al. Therapeutic management of chronic constipation. Expert Opinion Statement on behalf of the Swiss Society of Gastroenterology. 2022

Slow transit constipation - Treatment

Exclusion of the colon

Ostomy

- Cecostomy
- Ileostomy

Resection

Segmental colectomy

Total colectomy

Change of Colon content

- Antegrade enema
- Retrograde enema
- Fecal Microbiota Transplantation

Change of colon motility

SNS

Slow transit constipation - Colectomy

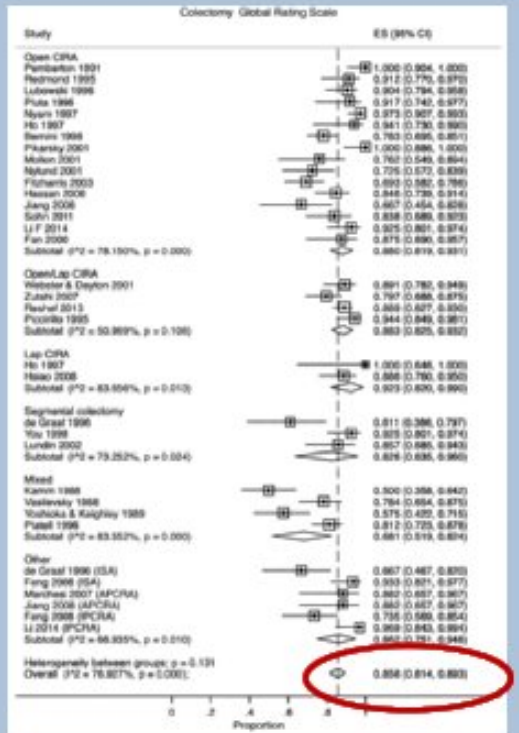
Surgery for constipation: systematic review and practice recommendations

40 articles

N=2045 patients

Knowles et al. Colorect Dis. 2017; 19:17-36; doi:10.1111/codi.13779

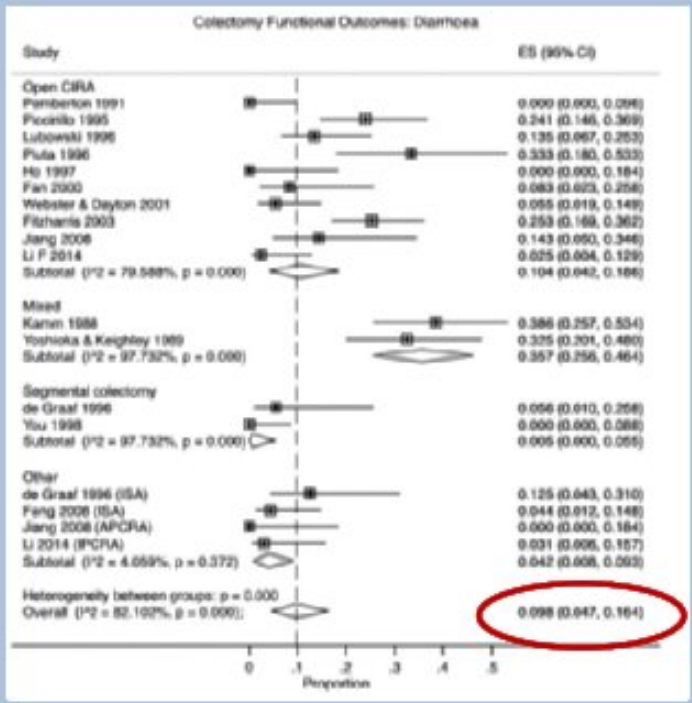
Colectomy + IRA - Satisfaction



86% satisfaction

Reshef et al. Colorect Dis. 2012; 15:481-486; doi:10.1111/codi.12058

Colectomy + IRA - Diarreha

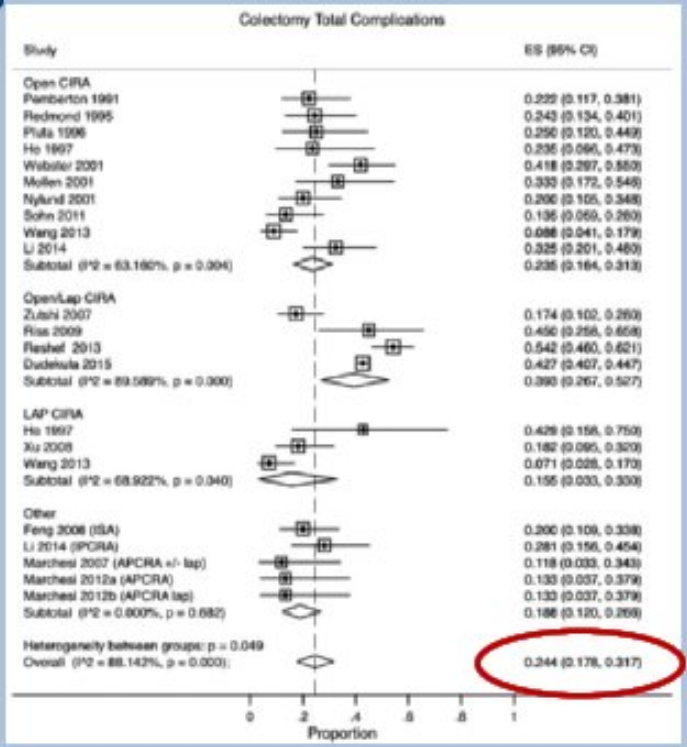


10% diarrhea

Reshef et al. Colorect Dis. 2012; 15:481-486; doi:10.1111/codi.12058

Colectomy + IRA - Complications

Meta-analysis



24% overall complications

Colectomy + IRA - Complications

Colectomy with ileorectal anastomosis has a worse 30-day outcome when performed for colonic inertia than for a neoplastic indication

A. Reshef, B. Gurland, M. Zutshi, R. P. Kiran and T. Hull
Department of Colorectal Surgery, Digestive Disease Institute, Cleveland Clinic, Cleveland, Ohio, USA

Period: 1999-2010

Group A (colonic inertia): n= 131

Group B (Neoplasia and polyp syndromes, no IBD): n= 202

Reshef et al. Colorect Dis. 2012; 15:481-486;
doi:10.1111/codi.12058

Colectomy + IRA - Complications

- Group Comparison

Variable	Group A: colonic inertia (n = 131) (%)	Group B: neoplastic group (n = 202) (%)	P
Death (30 days)	1 (1)	1 (1)	1
Anastomotic leakage	10 (8)	8 (4)	0.2
Abscess	12 (9)	5 (2)	0.01
Urinary tract infection	9 (7)	2 (1)	0.008
Wound infection	11 (8)	2 (1)	0.001
Ileus	42 (32)	39 (19)	0.009
Readmission	27 (21)	14 (7)	0.0003
Reoperation	15 (11)	14 (7)	0.2
Overall morbidity	47 (36)	30 (15)	< 0.001
Length of stay (days)	8.4 ± 6	7.2 ± 5	0.006

Colectomy + IRA - Complications

- Open surgery

Variable	Group A: colonic inertia group (n = 75) (%)	Group B: neoplastic group (n = 95) (%)	P
Death (30 days)	0	0	1
Anastomotic leakage	6 (8)	4 (4)	0.3
Abscess	10 (13)	2 (2)	0.006
Urinary tract infection	5 (7)	1 (1)	0.09
Wound infection	10 (13)	2 (2)	0.006
Ileus	28 (37)	17 (18)	0.005
Readmission	15 (20)	4 (4)	0.002
Reoperation	10 (13)	5 (5)	0.1
Overall morbidity	30 (40)	11 (12)	< 0.0001
Length of stay (days)	9.7 ± 7	7.9 ± 5	0.02

Colectomy + IRA - Complications

- Laparoscopic surgery

Variable	Group A: colonic inertia group (n = 56) (%)	Group B: neoplastic group (n = 107) (%)	P
Death (30 days)	1 (3)	1 (1)	0.51
Anastomotic leakage	4 (7)	4 (4)	0.4
Abscess	2 (4)	3 (3)	1
Urinary tract infection	4 (7)	1 (1)	0.05
Wound infection	1 (2)	2 (2)	1
Ileus	14 (25)	22 (20)	0.6
Overall morbidity	17 (30)	19 (18)	0.05
Readmission	12 (21)	10 (9)	0.05
Reoperation	5 (9)	9 (8)	0.1
Length of stay (days)	6.7 ± 3	6.6 ± 5	0.2

Slow transit constipation - Treatment

Diverting Loop Ileostomy in the Management of Medically Refractory Constipation Cases Not Falling Into Classical Categories

Inclusion criteria

- symptomatic constipation that failed the currently available maximal medical treatment
- constipation that either did not fall into classical categories of slow transit or pelvic outlet or had features of both during testing

Hung L., et al, Dis Colon Rectum 2022; 65: 909–916 DOI: 10.1097/DCR.0000000000002373

Slow transit constipation - Treatment

Diverting Loop Ileostomy in the Management of Medically Refractory Constipation Cases Not Falling Into Classical Categories

- 01/2006-12/2018
- N=87
- Median follow-up 5.2 months (range 1-85)
- Division of patients who met criteria of good vs. poor outcome

TABLE 1. Requirements to be considered a "good" outcome after DLI

1. Patient self-reported symptom improvement from baseline
2. No longer using medication (eg, laxative, stool softeners) for bowel motility
3. Ileostomy function ≥200 mL/d

DLI = diverting loop ileostomy.

Hung L., et al, Dis Colon Rectum 2022; 65: 909–916 DOI: 10.1097/DCR.0000000000002373

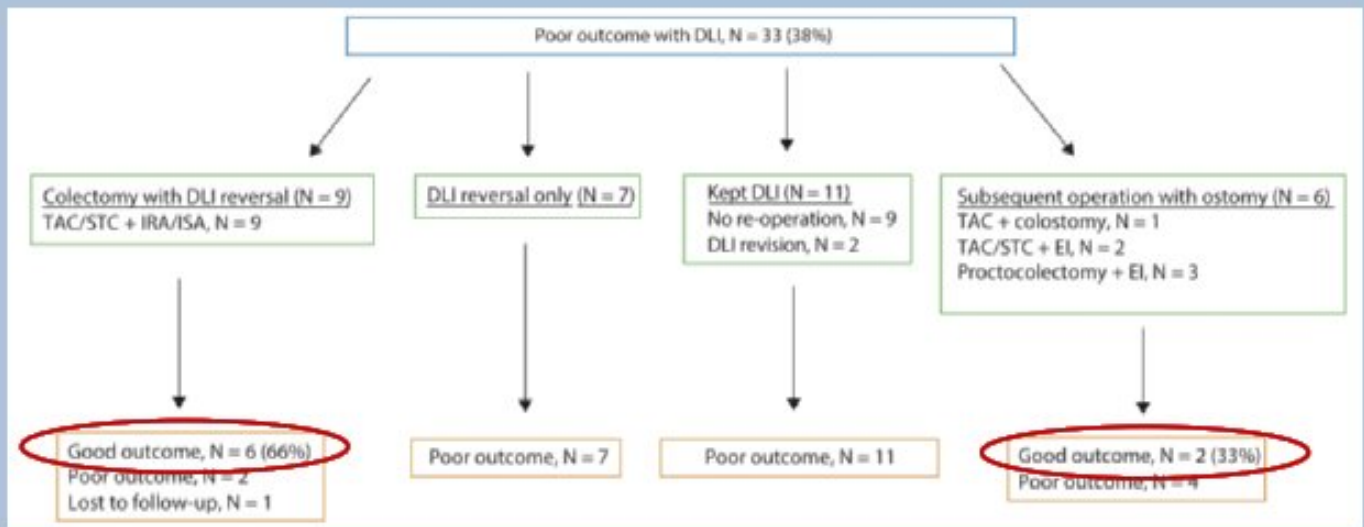
Slow transit constipation – Treatment with IS

- Good outcome 54/87 (62%)
- Poor outcome 33/87 (38%)

Hung L., et al, Dis Colon Rectum 2022; 65: 909–916 DOI: 10.1097/DCR.0000000000002373

Slow transit constipation - Treatment

- Poor outcome with loop ileostomy

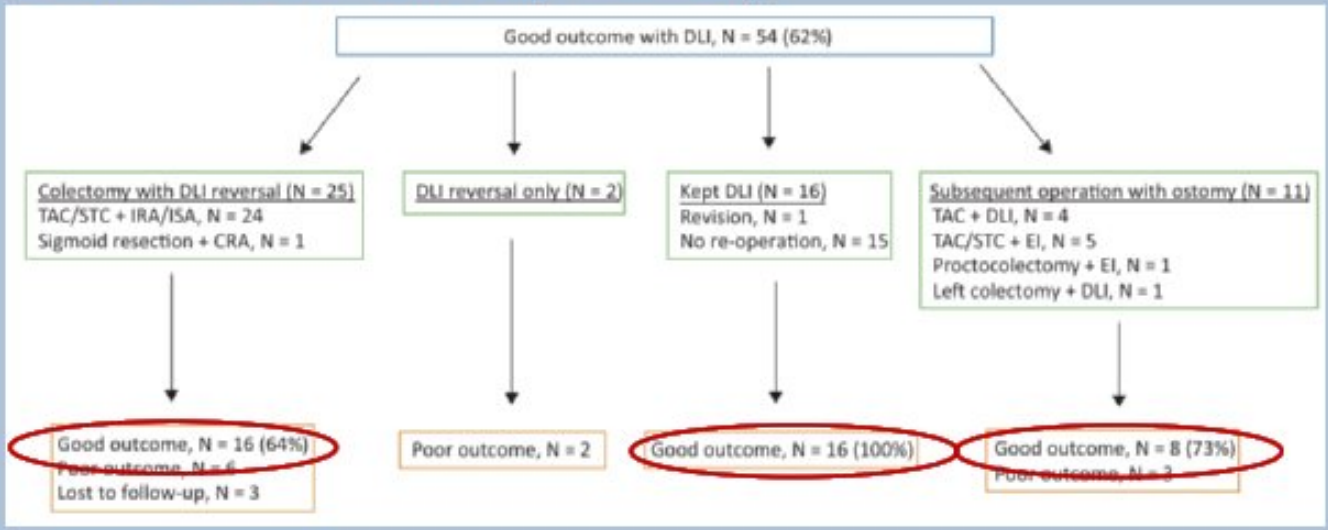


- Good outcome after colectomy in 8/33: 24%

Hung L., et al, Dis Colon Rectum 2022; 65: 909–916 DOI: 10.1097/DCR.0000000000002373

Slow transit constipation - Treatment

- Good outcome with loop ileostomy



Hung L., et al, Dis Colon Rectum 2022; 65: 909–916 DOI: 10.1097/DCR.0000000000002373

Slow transit constipation - Treatment

Long-term results of the antegrade continent enema procedure for constipation in adults

- 1992-2002
- N=32

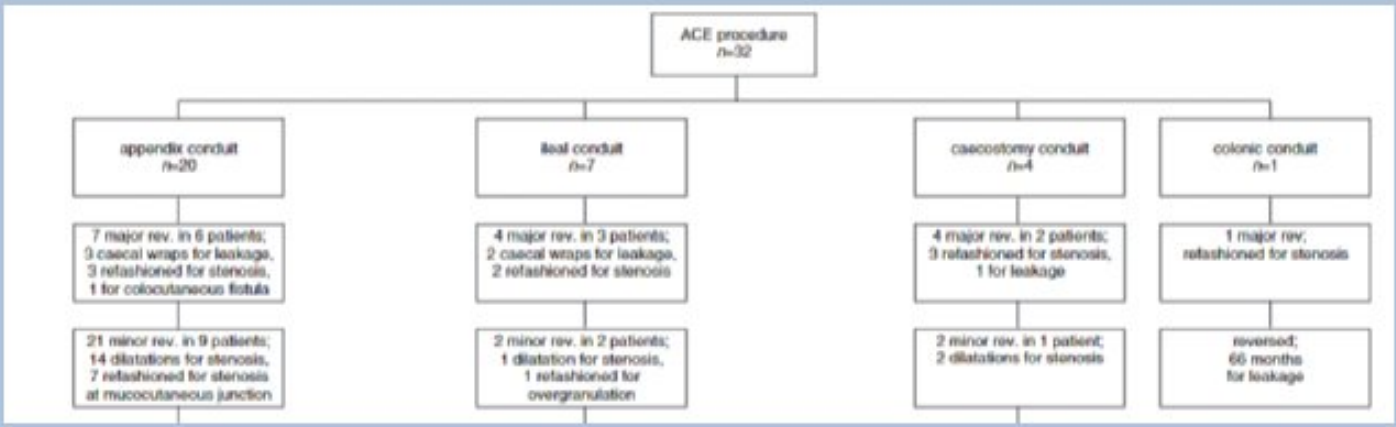
Conduits were created from

- Appendix (n=20, 62%)
- ileum (n=10, 27%)
- neoappendix caecostomy (n=5, 14%)
- colon (n=2, 5%).

Lees et al, Colorectal Disease 2004,6,362–368

Slow transit constipation - Treatment

Long-term results of the antegrade continent enema procedure for constipation in adults



Lees et al, Colorectal Disease 2004,6,362–368

Slow transit constipation - Treatment

Trans-anal irrigation therapy to treat adult chronic functional constipation: systematic review and meta-analysis

Study	Patients with Chronic Constipation (n)	Average age (Years)	Male:Female	Positive response n(%)	Time to assessment (Months (range))	Duration of therapy (Months (range))
Chan [13]	60	46	8:52	39 (65)	6[a]	10.7[a]
Christensen [9]	79	52[a]	25:62[a]	27 (34)	21 (1–116)[a]	8 (1–85)[a]
Koch [14]	10	55.4	4:7[a]	3 (30)	3[a]	-
Cazemier [15]	12	46	1:3	6 (50)	-	102 (30–216)[a]
Gosselink [16]	37[b]	54	5:32	24 (65)	56 (8–154)[a]	[d]
Gardiner [18]	41	-	-	21 (51)	-	-
Crawshaw [17]	15	54 (41–61)[a]	13:35[a]	8 (53)	12[d]	-
Total	254	-	-	128		

Emmett et al, BMC Gastroenterology (2015) 15:139 DOI 10.1186/s12876-015-0354-7

Slow transit constipation - Treatment

The Fecal Microbiota Transplantation: A Remarkable Clinical Therapy for Slow Transit Constipation in Future

Therapy	Clinical improvement rate	Clinical remission rate	Serious adverse events	Patients number	Reference
FMT+soluble dietary fiber+probiotics	69.9%	52.2%	0	23	(Gu et al., 2016a)
FMT+soluble dietary fiber	66.7%	42.9%	0	21	(Gu et al., 2016b)
FMT+soluble dietary fiber	75.9%	69.0%	0	29	(Zhang et al., 2018)
FMT	50%	37.5%	0	24	(Tian et al., 2016)
FMT	53.3%	36.7%	0	30	(Tian et al., 2017)

Liu et al, Frontiers in Cellular and Infection Microbiology. doi.org/10.3389/fcimb.2021.732474

Slow transit constipation - Treatment

The Fecal Microbiota Transplantation: A Remarkable Clinical Therapy for Slow Transit Constipation in Future

TABLE 1-2 | The clinical efficacy of FMT during different therapy times.

Therapy time (week)	Primary efficacy endpoint achieved rate	Reference
3-4	50.0%	(Ding et al., 2018)
9-12	38.5%	(Ding et al., 2018)
21-24	32.7%	(Ding et al., 2018)

Liu et al, Frontiers in Cellular and Infection Microbiology. doi.org/10.3389/fcimb.2021.732474

Slow transit constipation – SNS

Surgery for constipation: systematic review and practice recommendations

Results V: Sacral Nerve Stimulation

7 studies

N=375 patients

Pilkington et al, Colorect Dis 2017; 19 (Suppl. 3), 92–100

Slow transit constipation – SNS

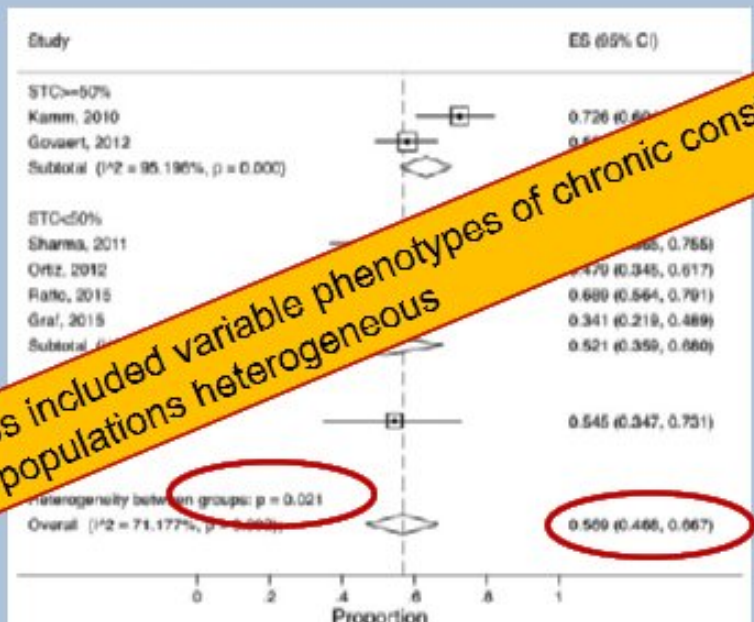


Figure 5 Forest plot showing rates of SNS response rate by level of STC patients (percentage of patients). KEY: STC, slow transit constipation.

All studies included variable phenotypes of chronic constipation making populations heterogeneous

57% response rate

Pilkington et al, Colorect Dis 2017; 19 (Suppl. 3), 92–100

Slow transit constipation – SNS

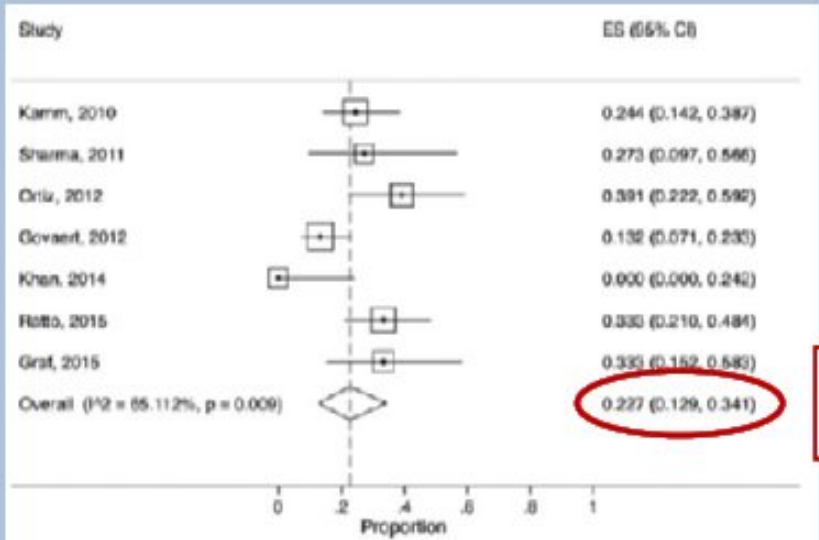


Figure 2 Forest plot showing rates of total procedural complications (percentage of patients).

23% overall complications

Pilkington et al, Colorect Dis 2017; 19 (Suppl. 3), 92–100

Slow transit constipation – SNS

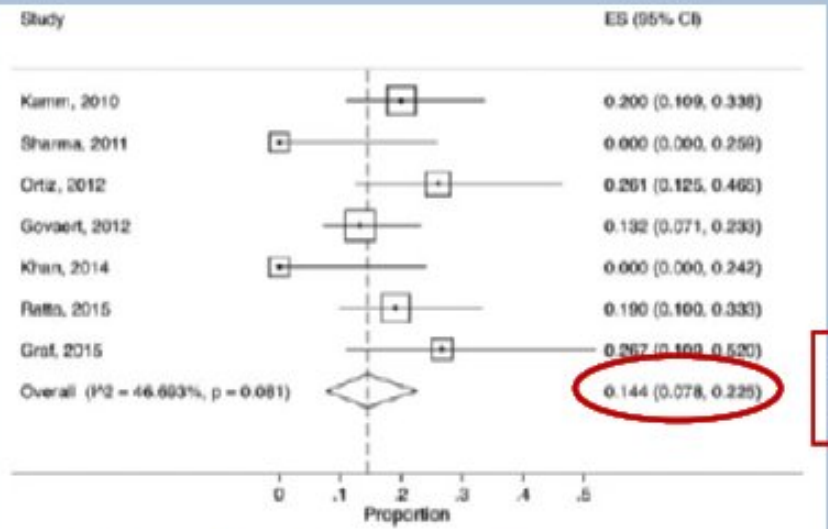


Figure 3 Forest plot showing rates of device explantation rate (percentage of patients).

14% explantation rate

Pilkington et al, Colorect Dis 2017; 19 (Suppl. 3), 92–100

Slow transit constipation – SNS

Surgery for constipation: systematic review and practice recommendations

Results V: Sacral Nerve Stimulation

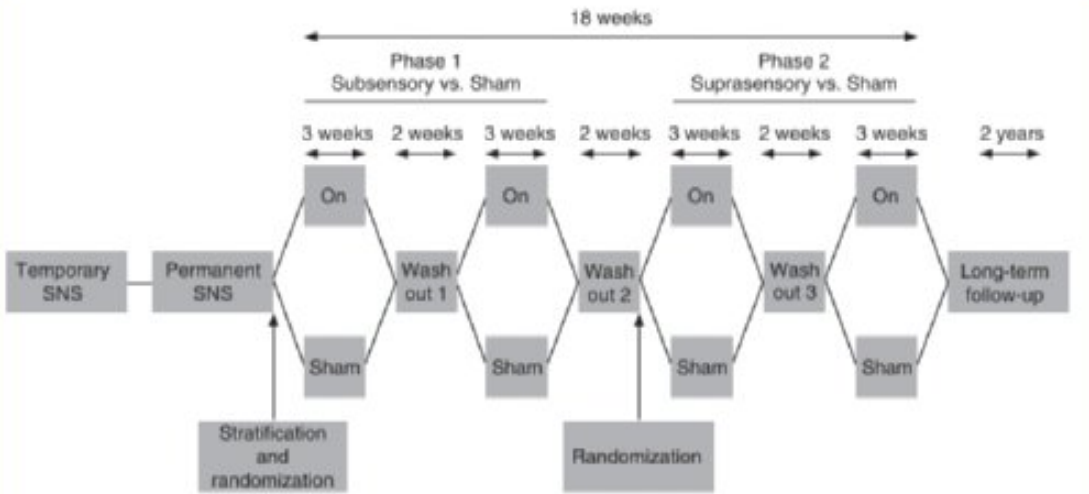
These more recent prospective studies suggest that less efficacy of SNS in constipation

Prediction of responders using various temporary testing regimens is poor.

Pilkington et al, Colorect Dis 2017; 19 (Suppl. 3), 92–100

Slow transit constipation – SNS

Treatment Efficacy of Sacral Nerve Stimulation in Slow Transit Constipation: A Two-Phase, Double-Blind Randomized Controlled Crossover Study



Dinning et al Am J Gastroenterol 2015; 110:733–740; doi: 10.1038/ajg.2015.101

Slow transit constipation – SNS

Treatment Efficacy of Sacral Nerve Stimulation in Slow Transit Constipation: A Two-Phase, Double-Blind Randomized Controlled Crossover Study

N= 53

SNS did not improve the frequency of complete bowel movements over the 3-week active period

Dinning et al Am J Gastroenterol 2015; 110:733–740; doi: 10.1038/ajg.2015.101

Slow transit constipation – Summary

No high quality studies on the perioperative and long-term benefits and harms of colectomy

Mostly observational studies of variable and often uncertain methodological quality regarding to all treatment modalities

Current data suggest a balance of harms against efficacy with evidence that outcomes are at best variable.

Dinning et al Am J Gastroenterol 2015; 110:733–740; doi: 10.1038/ajg.2015.101

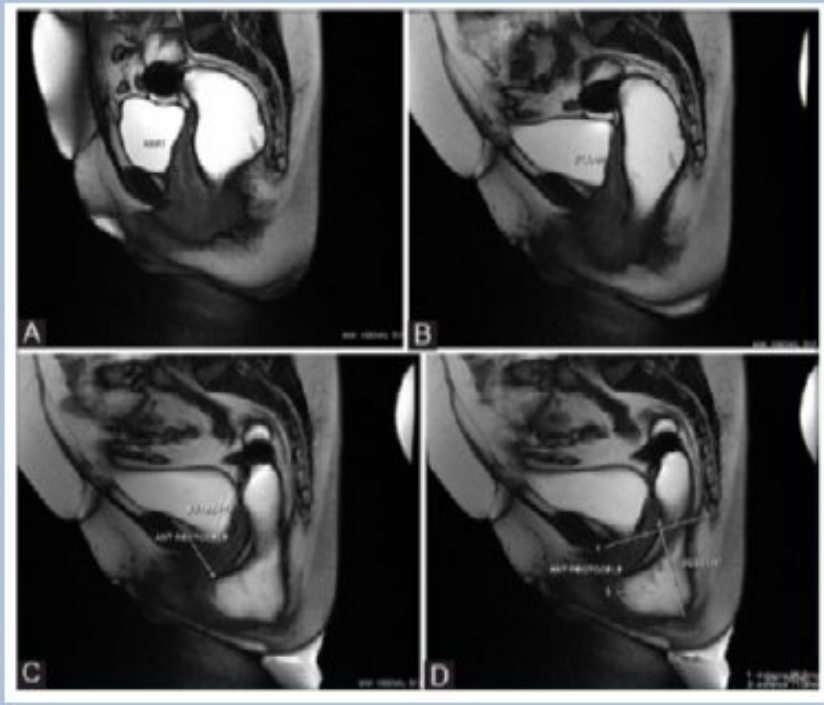
Chronic constipation - Differentiation

- **Functional constipation**
  - Slow transit constipation
- **Morphological defecatory disorder**
  - Rectocele
  - Intususception
  - Cul- de-Sac

Bharucha and Lacy. Gastroenterology 2020; 158:1232–1249.

ODS- Diagnostics

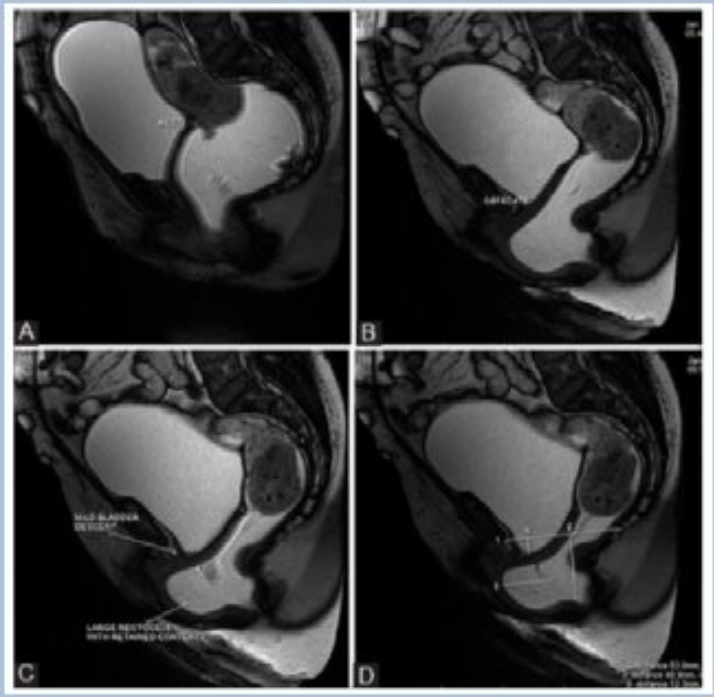
MR defecogram: Moderate anterior rectocele



Thapar et al: DOI: 10.4103/0971-3026.150134

ODS- Diagnostics

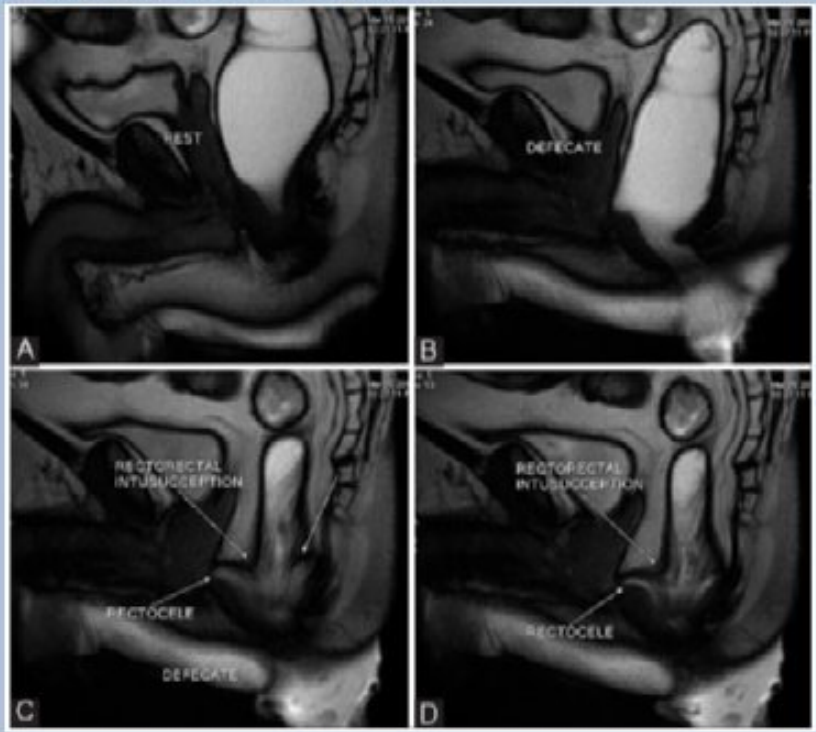
MR defecogram: Large anterior rectocele



Thapar et al: DOI: 10.4103/0971-3026.150134

ODS- Diagnostics

MR defecogram: Intussuception



Thapar et al: DOI: 10.4103/0971-3026.150134

Slow transit constipation - Diagnostics

MR defecogram: Grading

Table 1: Grading of pathologies

Pathology	Mild (cm)	Moderate (cm)	Severe (cm)
Bladder descent	<3	3-6	>6
Vault descent	<3	3-6	>6
Anorectal descent	<3	3-6	>6
Enterocele	<3	3-6	>6
Rectocele	<2	2-4	>4

Thapar et al: DOI: 10.4103/0971-3026.150134

ODS – Surgical principles

Principle of all surgical procedures

- to eliminate the voiding disorder by **reducing the rectal reservoir** (transanal or transperineal procedures)

or

- to **eliminate morphological, functionally relevant "obstructions"** using transabdominal procedures

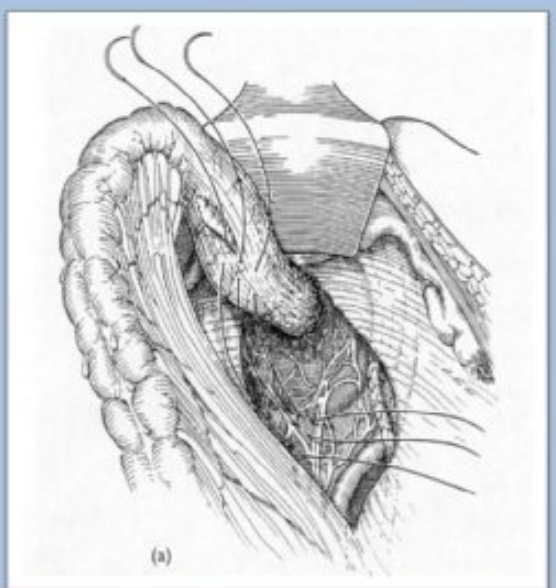
Schwandner O. Zentralbl Chir 2019; 144: 387–395. doi.org/10.1055/a-0938-6963

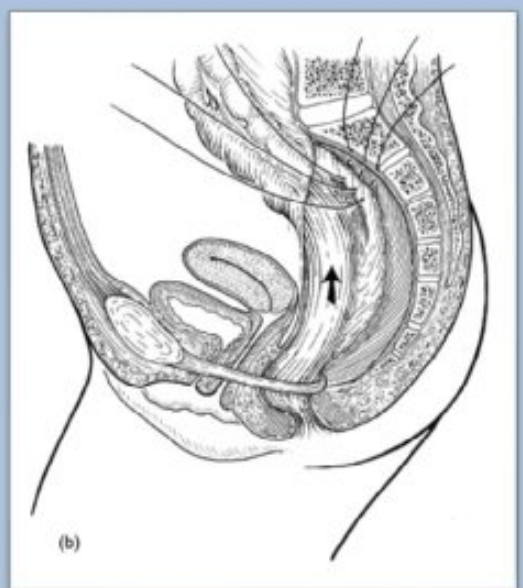
Outlet obstruction – Abdominal Surgery

Pexy: dorsal		
Without mesh	Sudeck	Complete mobilisation of the rectum down to levator level - Fixation of the stretched rectum to presacral fascia
With mesh	Ripstein	Additionally: - Circular wrapping of the rectum with mesh with fixation of the mesh to the rectum and presacral
	Wells	Like Sudeck and additionally: - semicircular fixation presacral with mesh, but anterior 1/3 rectum excluded
Pexy: Ventral		
With mesh	Orr-Loygue	**Anterior and posterior dissection** after opening of the peritoneum - Fixation of 2 mesh strips anterolateral on both sides deep in the rectum and promontory - Peritoneal closure covering the meshes
	D'Hoore	**Exclusive anterior dissection** after opening of the peritoneum - Fixation of 1 mesh strip ventrally on the distal rectum, on the left lateral seromuscular border of the rectum and on the promontory - Peritoneal closure covering the mesh

Outlet obstruction - Surgery

Pexy: dorsal		
Without mesh	Sudeck	Complete mobilisation of the rectum down to levator level - Fixation of the stretched rectum to presacral fascia





Outlet obstruction - Surgery

Pexy: dorsal		
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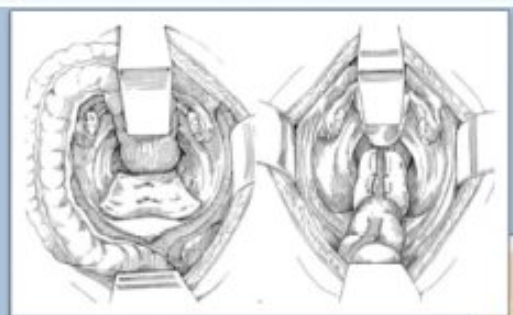
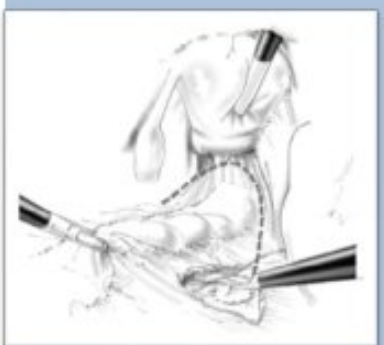
Mesh-Rectopexy (Ripstein)



Mesh-Rectopexy (Wells)

Outlet obstruction - Surgery

Pexy: Ventral		
	D'Hoore	**Exclusive anterior dissection** after opening of the peritoneum - Fixation of 1 mesh strip ventrally on the distal rectum, on the left lateral seromuscular border of the rectum and on the promontory - Peritoneal closure covering the mesh



D'Hoore A, Pennickx F: Surg Endosc (2006) 20: 1919-1923

Outlet obstruction - Surgery

Obstructed defaecation syndrome: European consensus guidelines on the surgical management

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

31 surgeons from 12 countries

Picciarello A et al. BJS 2021,108,1149–1153; DOI: 10.1093/bjs/znab123

Outlet obstruction - Surgery

Table 1 Diagnostic statements and experts' agreement

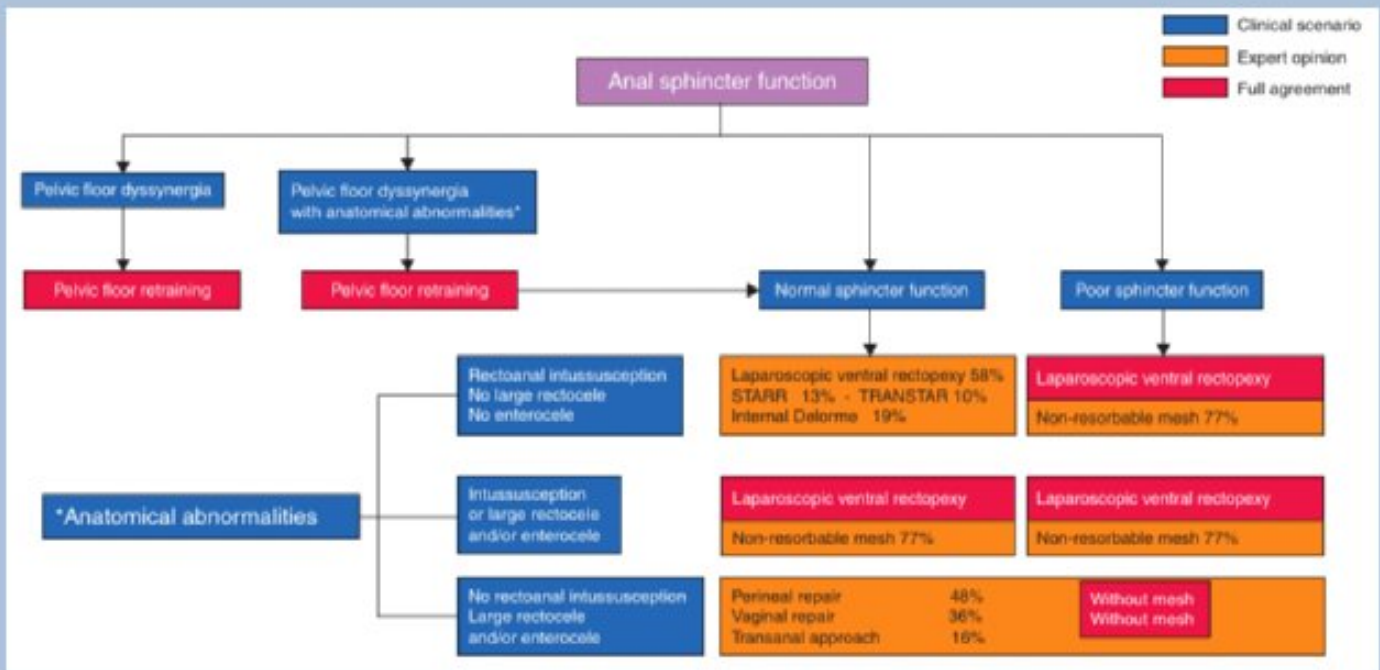
Statements	Experts' answers				Agreement (%)	Expert opinion
	FA	A	WA	D		
In diagnostic assessment, the use of a scoring system to assess the severity of symptoms is recommended	21	10	0	0	82	Appropriate
In the diagnostic work-up, preoperative anal manovolumetry is mandatory	14	8	7	0	50	Uncertain
Among 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.

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

Picciarello A et al. BJS 2021,108,1149–1153; DOI: 10.1093/bjs/znab123

Outlet obstruction - Surgery



Picciarello A et al. BJS 2021,108,1149–1153; DOI: 10.1093/bjs/znab123

Outlet obstruction - Surgery

Outcomes of Stapled Transanal Rectal Resection *vs.* Biofeedback for the Treatment of Outlet Obstruction Associated with Rectal Intussusception and Rectocele: A Multicenter, Randomized, Controlled Trial

119 female patients with ODS

RCT: STARR vs. Biofeedback

Lehur et al; DOI: 10.1007/s10350-008-9378-1 VOLUME 51: 1611–1618 (2008)

Outlet obstruction - Surgery

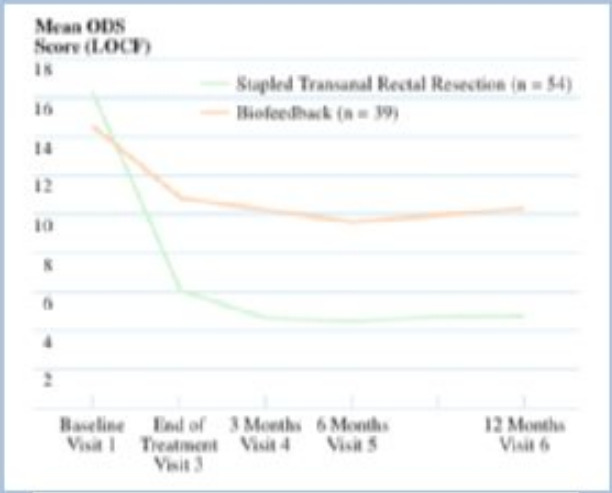


Table 3. Success rate defined as a ODS score decrease ≥50 percent at 12 months in the evaluable and per-protocol populations

	Evaluable population		*Per-protocol population*	
	STARR	*Biofeedback*	*STARR*	*Biofeedback*
N (%)	54	39	31	19
Yes	44 (81.5)	13 (33.3)	25 (80.6)	5 (26.3)
No	10 (18.5)	26 (66.7)	6 (19.4)	14 (73.7)

ODS=obstructed defecation syndrome; STARR=stapled transanal rectal resection.

Lehur et al; DOI: 10.1007/s10350-008-9378-1 VOLUME 51: 1611–1618 (2008)

Outlet obstruction - Surgery

Comparative outcome of stapled trans-anal rectal resection and macrogol in the treatment of defecation disorders

N=60

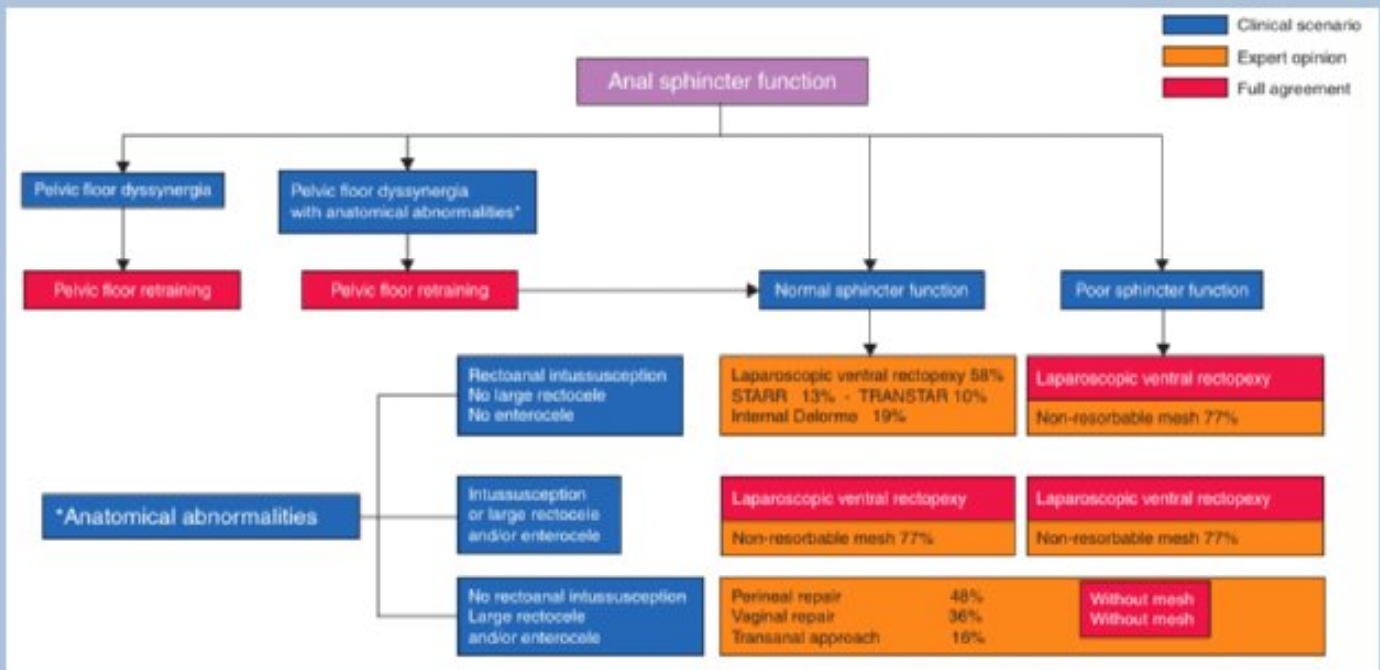
Macrogol vs. STARR

Table 3 Number of responders, degree of satisfaction, and Wexner constipation score variation during macrogol and after stapled trans-anal rectal resection treatment *n* (%)

	Macrogol	STARR	*P* value
Responders	22 (73)	16 (53)	0.2
Satisfaction			0.4
Total	18 (60)	16 (53)	
Partial	5 (17)	9 (30)	
Not satisfied	7 (23)	5 (17)	
Δ Wexner score, mean ± SD	8 ± 5	6 ± 5.2	0.1

Biviano et al. World J Gastroenterol 2011 October 7; 17(37): 4199-4205

Outlet obstruction - Surgery



Picciarello A et al. BJS 2021,108,1149–1153; DOI: 10.1093/bjs/znab123

Outlet obstruction – Perineal Surgery

Statements	Experts' answers				Agreement(%)	Expert opinion
	FA	A	WA	D		
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

Picciarello A et al. BJS 2021,108,1149–1153; DOI: 10.1093/bjs/znab123

Outlet obstruction – Perineal Surgery

Rectocele: victim of availability bias? Results of a Belgian survey of colorectal and gynecological surgeons

	Colorectal surgeons ($N=41$)	Gynecologists ($N=23$)	P value
Definition of rectocele			
Prolapse posterior vaginal wall	17 (41%)	18 (78%)	0.005
Weakening anterior rectal wall	13 (32%)	2 (9%)	0.037
Other	11 (27%)	3 (13%)	0.201
Clinical examination (CE) of rectocele			
Dorsal decubitus	18/37 (49%)	22/22 (100%)	< 0.001
Speculum	11 (27%)	21 (91%)	< 0.001
Vaginal examination	30 (73%)	20 (87%)	0.201
Digital rectal examination	37 (90%)	13 (57%)	0.002

Van den Broeck S Int Urogynecological Journal 2022; 33: 3505-17

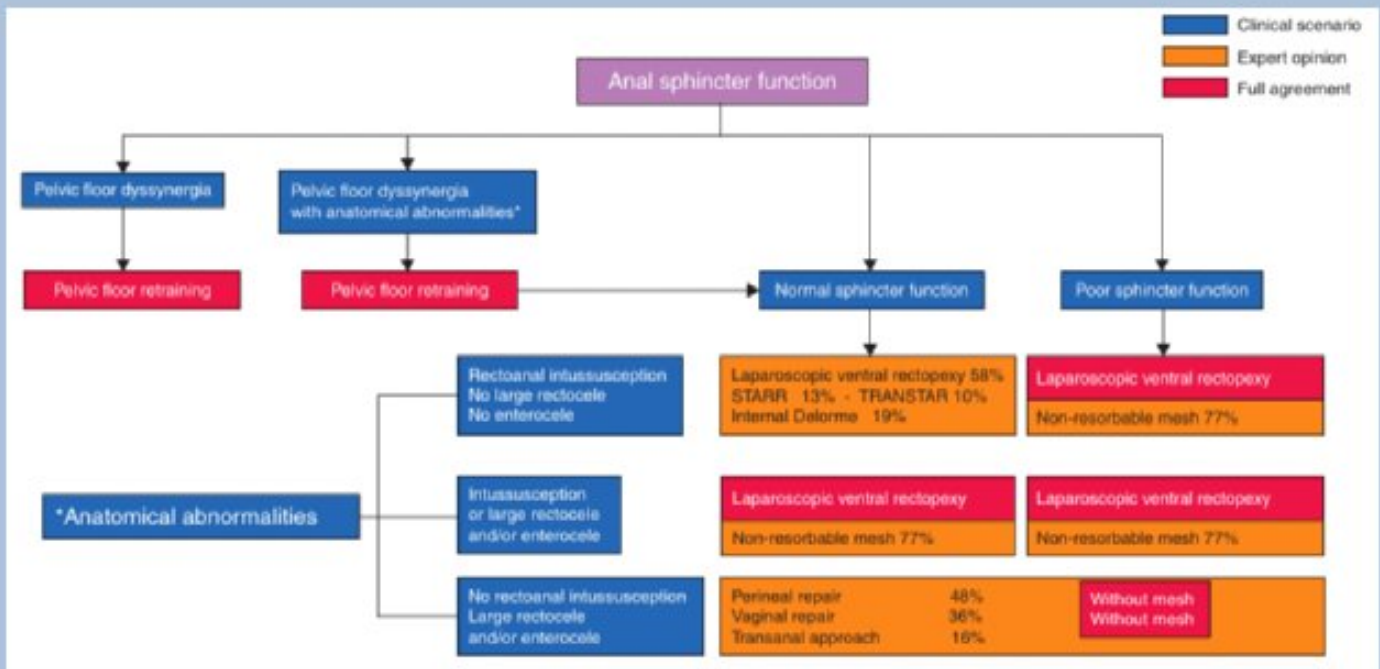
Outlet obstruction – Perineal Surgery

Rectocele: victim of availability bias? Results of a Belgian survey of colorectal and gynecological surgeons

	Colorectal surgeons ($N=41$)	Gynecologists ($N=23$)	P value
I treat a rectocele myself	37 (90%)	20 (87%)	0.065
I refer the patient to a pelvic floor specialist			
Gynecologist	0 (0%)	2 (9%)	0.125
Colorectal surgeon	3 (7%)	1 (4%)	1.000
Gastroenterologist	0 (0%)	0 (0%)	1.000
Multidisciplinary discussion/consultation	1 (3%)	0 (0%)	1.000
Surgery for rectocele technique			
Posterior repair without mesh (CP)	5 (12%)	18 (78%)	< 0.001
Posterior repair with mesh	3 (7%)	1 (4%)	1.000
Transanal repair	2 (5%)	0 (0%)	0.525
Sacrocolpopexy	1 (2%)	3 (13%)	0.141
Ventral mesh rectopexy (VMR)	26 (63%)	0 (0%)	< 0.001
Other	4 (10%)	1 (4%)	0.646

Van den Broeck S Int Urogynecological Journal 2022; 33: 3505-17

Outlet obstruction - Surgery



Picciarello A et al. BJS 2021,108,1149–1153; DOI: 10.1093/bjs/znab123

Outlet obstruction – Ventral Mesh

Autor	Jahr	Patienten	Follow-up	Methode	Dissektion laterales Ligamente	Indikation	Funktionelle Resultate						Besonderheiten
							FI präop	FI: Änderung postop	Score	Obstipation präop	Obstipation: Änderung postop	Score	
		(n)	(Monate)				(%)	(%)		(%)	(%)		
Collinson [6]	2009	75	12	LVR	Nein	III/IV° IRP	78,6	44⁺	FISI	86,6	35⁺	WCS	
Slawik [43]	2008	80	54	73LVR 7 RR	Nein	55% ERP 45% III° IRP	53,75	91⁺	CCIS	31	80⁺ 5,5⁻	Unbek.	Mit post. Colporrhaphie vag. Sakrokolpopexie in 74 Fällen
Sileri [41]	2012	34	12	LVR	Nein	III/IV° IRP	44,1	73,4⁺	FISI	82,4	82⁺	WCS	
Portier [37]	2011	40	22	LVR 17 lap. 23 konv.	Nein	IRP	100	97,5⁺	CCIS	50	65⁺ 5⁻		
Portier [36]	2006	73	28,6	OL 47 konv. 26 lap	Nein	ERP IRP	65,75	99,7⁺	CCIS	50,7	62,1⁺ 10,9⁻	Score nach Douard	
Wong [51]	2011	41 ᵃ33	12	LVR mod.	Nein	„Komplexe" Rektozele	k.A.	⁺	CCIS	Median 9,5	⁺	ODS	15 Robotic-Operationen
Van den Esschert [47]	2008	17 ᵃ16	38	LVR	Nein	OD ERP: 1 IRP: 4	17,7	100⁺	Unbek.	Mean 3,5	–	ODS	
Oom [32]	2008	33	6	LVR	Unbek.	Rektozele OD	–	–	–	60,6	45	ROME II	

CCIS Cleveland Clinic Incontinence Score, **ERP** externer Rektumprolaps, **FI** fäkale Inkontinenz, **FISI** Fecal Incontinence Severity Index, **IRP** interner Rektumprolaps, **k.A.** keine Angabe, **Konv** konventionelles (offenes) Verfahren, **LVR** laparoskopische ventrale Rektopexie nach D'Hoore, **OD** obstruierte Defäkation/Obstipation, **ODS** Obstructed Defaecation Score, **OL** Operation nach Orr-Loygue, **RR** Resektionsrektopexie, **postop** postoperativ, **präop** präoperativ, **Unbek.** Unbekannt, **WCS** Wexner Constipation Score. ᵃNach dem beschriebenen Follow-up noch erreichbare Patienten; ⁺verbessert/geheilt; ⁻verschlechtert/neu aufgetreten.

Kienle O, Horisberger K: Chirurg 2013 · 84:21–29

Outlet obstruction - Surgery

Laparoscopic ventral mesh rectopexy in complex pelvic floor disorder

2010-2016

Complex pelvic floor disorder

Symptomatic rectocele, enterocele and possible rectal prolapse I° or II °

Horisberger K et al. Int J Colorectal Dis (2016) 31:991–996; DOI 10.1007/s00384-016-2545-2

Outlet obstruction - Surgery

Laparoscopic ventral mesh rectopexy in complex pelvic floor disorder

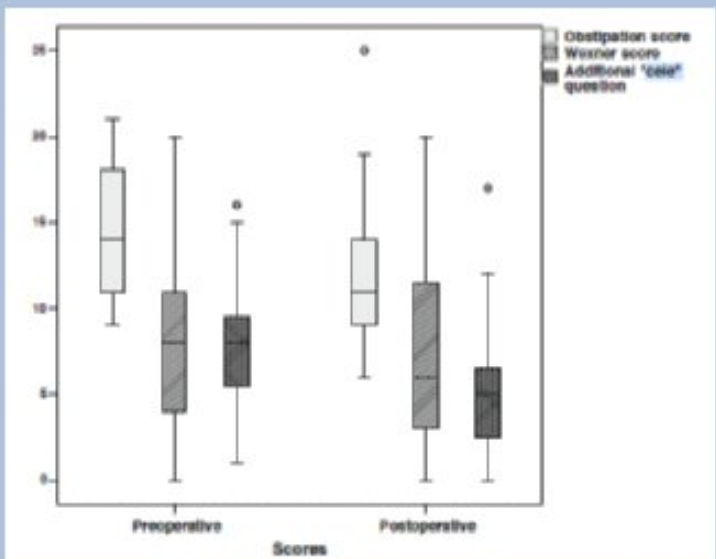
Female/male	27/0
Age (median; range)	60 (24–78)
Antecedent history (months) Median; range	24 (3–480)
Preoperative findings	
	n (%)
Rectocele	22 (78.6)
Enterocele	18 (64.3)
Rectal prolapse	12 (42.9)
Pelvic floor descent	22 (78.6)

FU: 22 mths

Horisberger K et al. Int J Colorectal Dis (2016) 31:991–996; DOI 10.1007/s00384-016-2545-2

Outlet obstruction - Surgery

Laparoscopic ventral mesh rectopexy in complex pelvic floor disorder



Horisberger K et al. Int J Colorectal Dis (2016) 31:991–996; DOI 10.1007/s00384-016-2545-2

Outlet obstruction - Surgery

Laparoscopic ventral mesh rectopexy in complex pelvic floor disorder

Sexual activity before surgery	15 (55.5%)	
Improvement after surgery		6 (40%)
Change for the worse		8 (53%)
Refusal to answer		1

Horisberger K et al. Int J Colorectal Dis (2016) 31:991–996; DOI 10.1007/s00384-016-2545-2

Outlet obstruction - Surgery

Patients' Perception of Long-term Outcome After Laparoscopic Ventral Mesh Rectopexy; Single Tertiary Center Experience

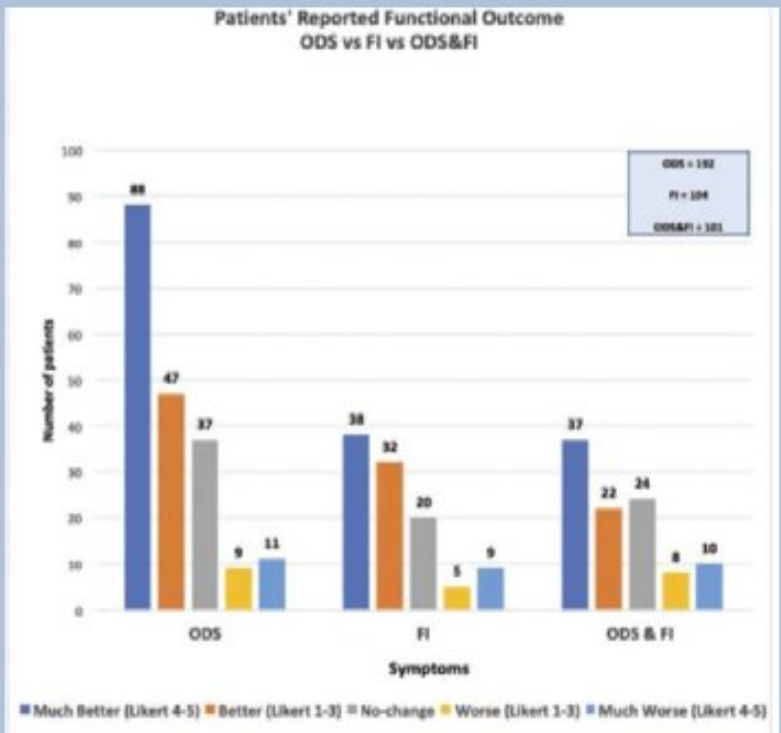
N=192 ODS patients

N= 104 FI patients

N= 101 ODS &FI patients

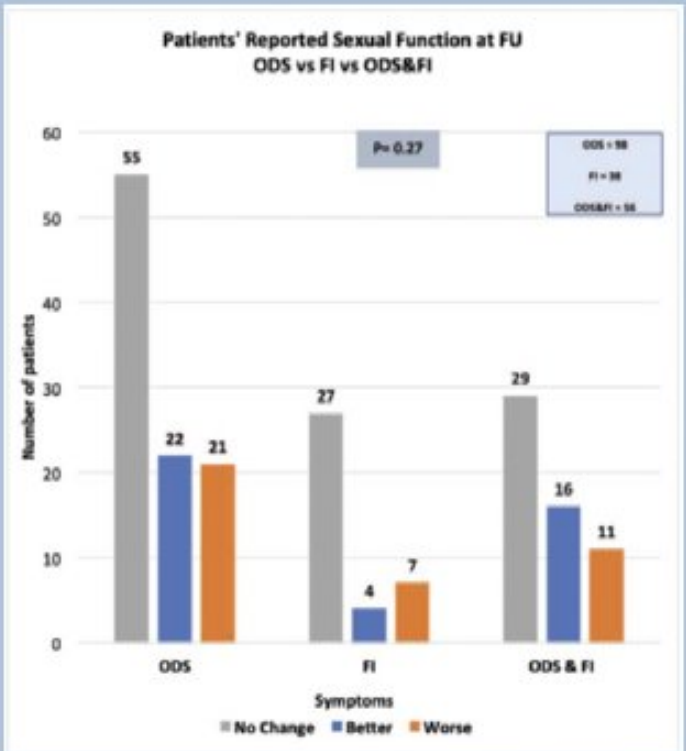
Singh S, et al. Annals of Surgery Volume 276, Number 5, November 202

Outlet obstruction - Surgery



Singh S, et al. Annals of Surgery Volume 276, Number 5, November 202

Outlet obstruction - Surgery



Singh S, et al. Annals of Surgery Volume 276, Number 5, November 202

Summary ODS

- Differentiation between morphological and functional pathologies
- Surgical prcedures are controversially discussed
- No standardization due to variety of clinical scenarios possible

Summary

- Adequate therapy remains in both ODS and STC a challenge - applies to conservative therapy options as for surgical therapy concepts
- Individualised therapy approach based on symptoms and quality of life
- Careful indication for surgery – benign disease!

VIELEN DANK