Transperineal Repair of Rectocele Vertical Versus Horizontal Plication of Rectal Wall :

A pilot prospective control trial

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ORIGINAL ARTICLE

Horizontal versus vertical plication of the rectovaginal septum in transperineal repair of anterior rectocele: a pilot randomized clinical trial

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Background

- Rectocele represents a major cause of ODS .
- Common in multiparous women .
- Diagnosis : clinical and radiological .
- Management : Conservative or surgery .

Background

- **Indications for surgical treatment:(Ellis, 2006).**
  - Rectocele >3 cm .
  - Significant barium entrapment on defecography.
  - Frequent need for digital assistance of defecation.

- **Surgical options :**

Posterior colporrhaphy	Site-specific repair	Transanal approach	Transabdominal

Background

- **No established standard approach or method for rectocele repair .**
- **Choice for repair :** posterior colporrhaphy .
- **Approach :** transperineal (our experience ??)
- **Plication Direction :** Vertical /horizontal /combined. (Defect ??)

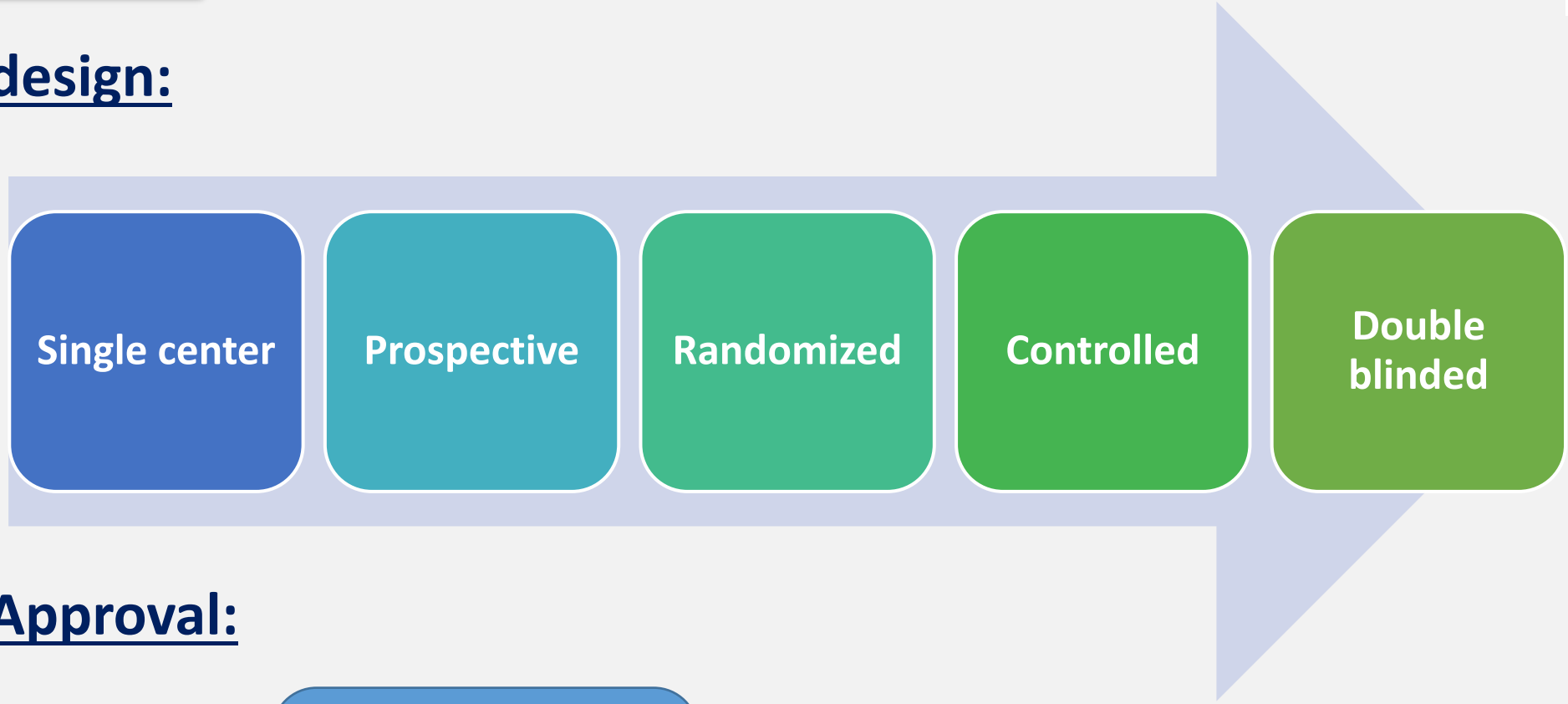
Aim of the work

To evaluate the results of transperineal repair with vertical plication of the rectovaginal septum compared to the horizontal plication in rectocele repair regarding :

- The improvement in constipation and percentage of complete cure .
- Sexual-related quality of life.
- Recurrence of rectocele .
- Postoperative complications .

Patients

- **Study design:**



- **Study Approval:**

IRB
MIS 18.04.103

Trial registeration

Patients

Study Population:

Anterior rectocele and obstructed defecation

Colorectal Surgery Unit, General Surgery Department, Mansoura University Hospitals

June 2018 through April 2019.

Patients

Inclusion criteria

Rectocele > 3 cm in size

+

Retention of the contrast on defecography.

<u>at least one</u>

- Digitation.
- Sense of incomplete evacuation.
- Excessive straining
- Failed conservative.

Patients

Exclusion criteria

- Other causes of ODS
- Slow transit constipation
- Systemic cause of constipation
- Associated anorectal pathology
- Recurrence
- Fecal incontinence

Patients

Random Sequence Generation and Blinding

Groups

Group 1
Vertical plication

Group 2
Horizontal plication

Online software
www.randomization.com.

Sealed opaque envelopes.

Double-blinded

Patients

Outcomes

- **The primary outcomes :**
  - The % of complete cure .
  - Postoperative Wexner score at 12 months .
- **The Secondary outcomes**
  - Operative time, hospital stay .
  - General and sexual quality of life, and changes in anal pressures .
  - Early post operative complications (as bleeding, wound disruption, and wound infection) .
  - Rectocele recurrence (detected clinically or by defecography .
  - Patient satisfaction .

Method

Preoperative Assessment:

(*History Taking*)

- Main complaint.
- Previous trials for the management, and the possible effect on lifestyle.
- An overall functional score was estimated for each patient using the **Wexner constipation score** **(Agachan et al., 1996)** for ODS.

Method

Preoperative Assessment

(*Clinical Examination*)

Lithotomy position

Inspection at rest and straining .

DRE

Vaginal and bimanual examination.

Method

Preoperative Assessment

(*Investigations*)

- **Routine pre-operative investigations .**
- **Specific investigations :**
  - Defecography
  - Anal manometry .
  - Colon transit study.
  - Colonoscopy .

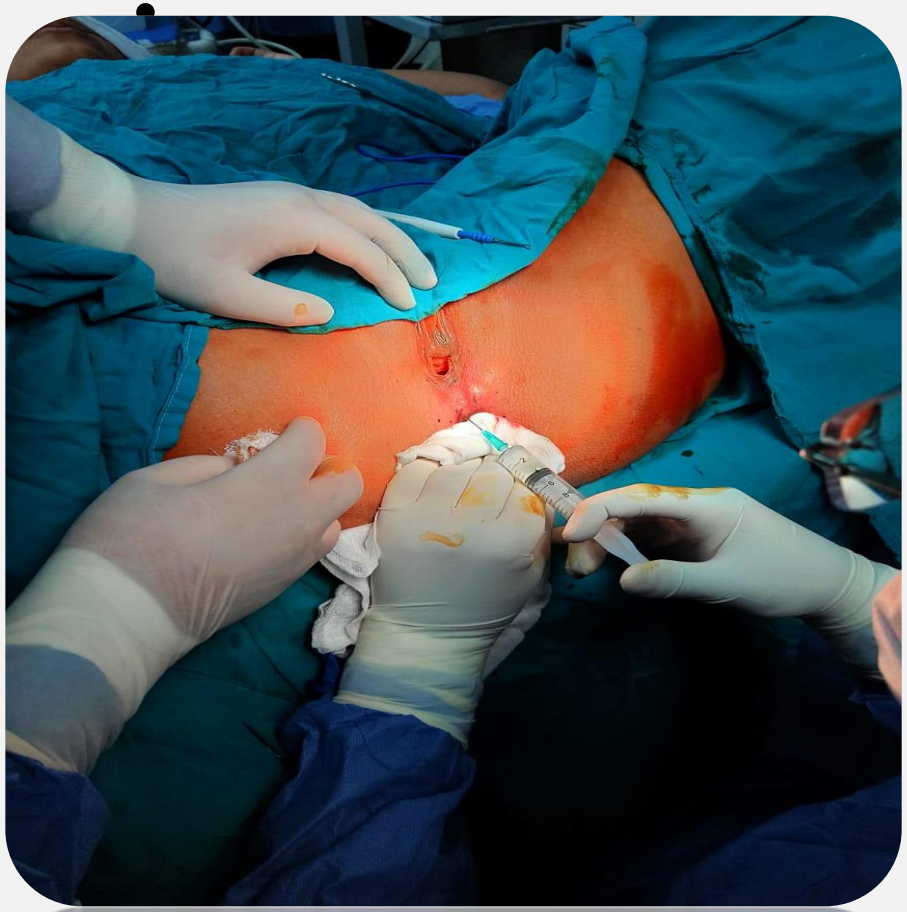
Method

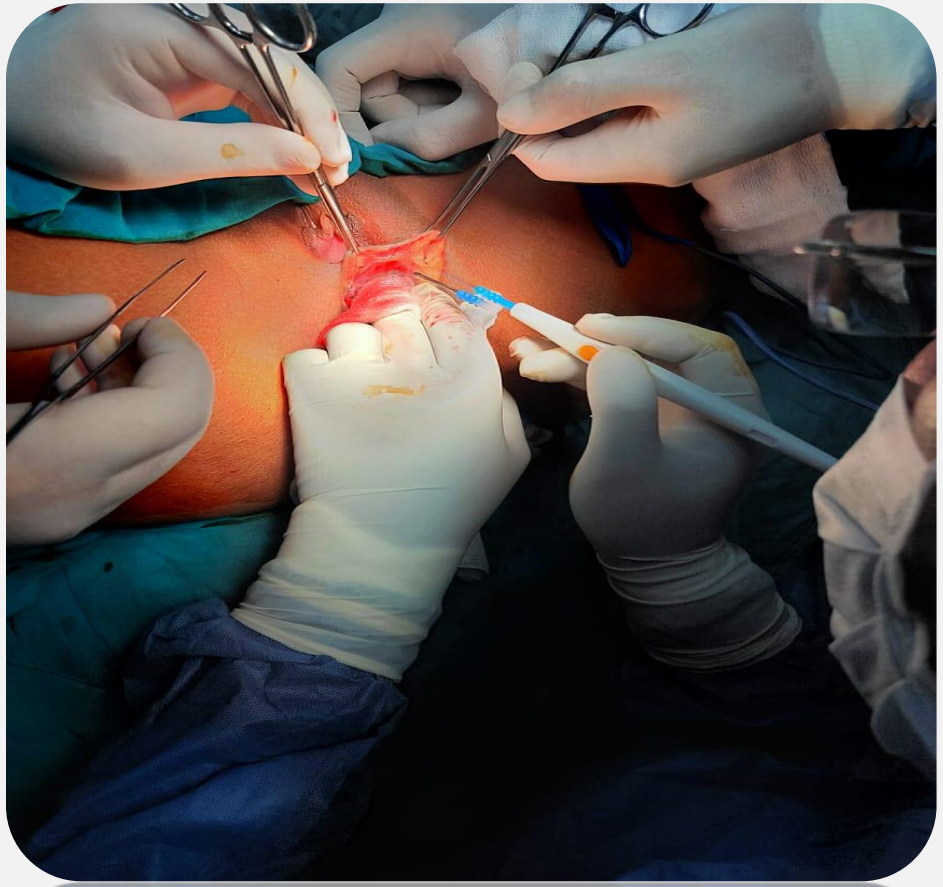
Preparation for surgery

- Informed Consent .
- Restriction of oral feeding to clear liquids 24 hours before the surgery.
- A disposable enema was used 2 hours before the surgical procedure.
- Antimicrobial prophylaxis .

Method

Surgical Technique





Method

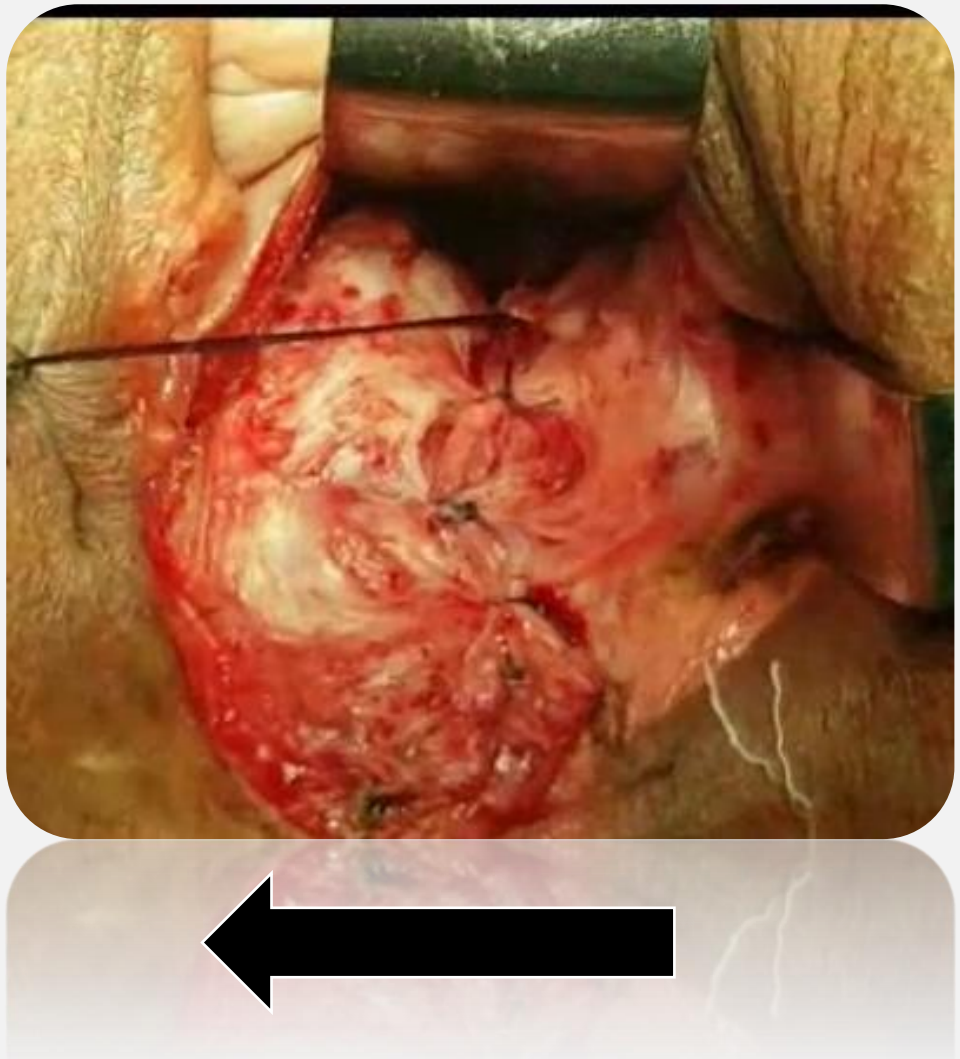
Surgical Technique

Method

Surgical Technique

Group I

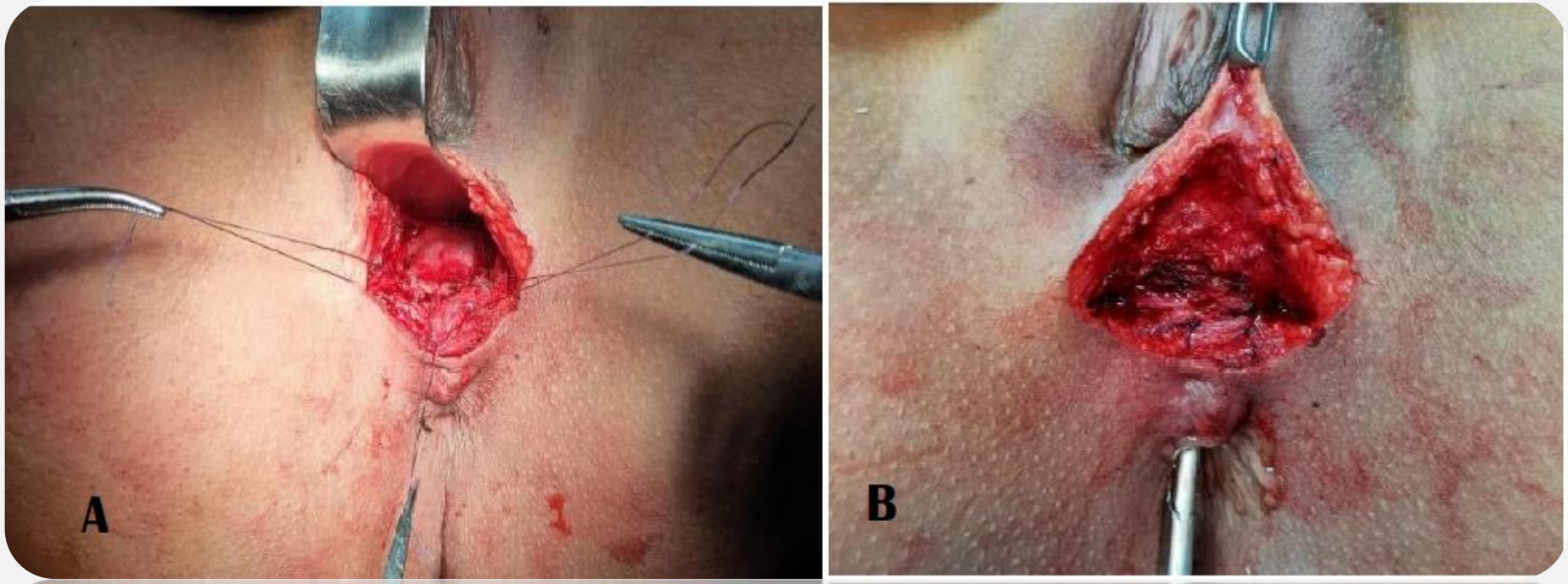
(Vertical plication group)



Method

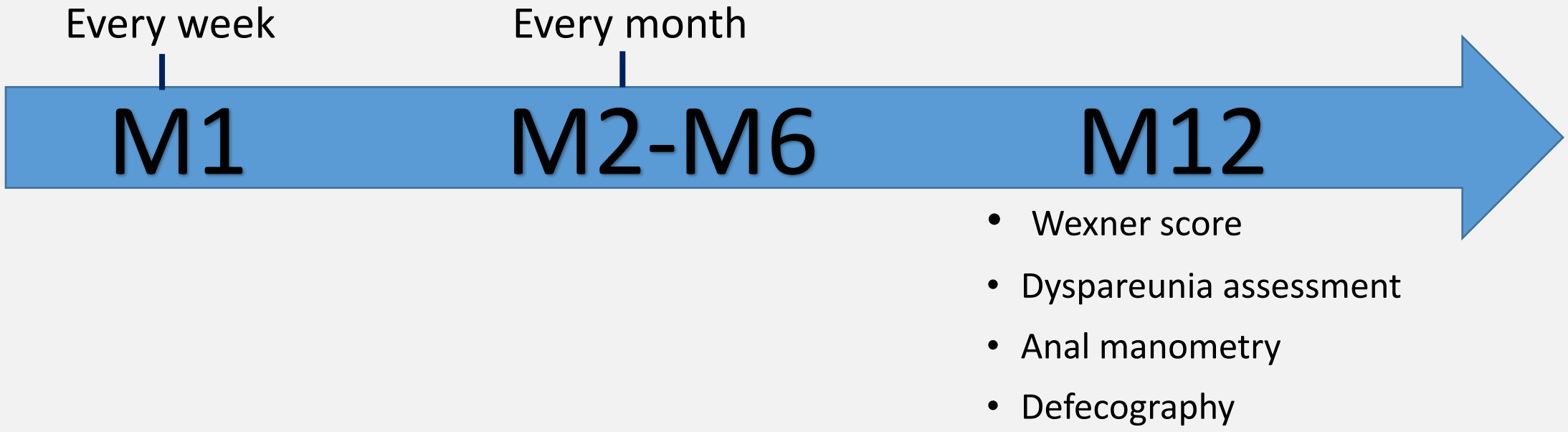
Surgical Technique

- Group II (**Horizontal plication group**)



Method

Post-operative follow up



Patients were classified according to the degree of clinical improvement in symptoms of ODS into **3** groups :

Complete cure / Improvement / Non- improvement.

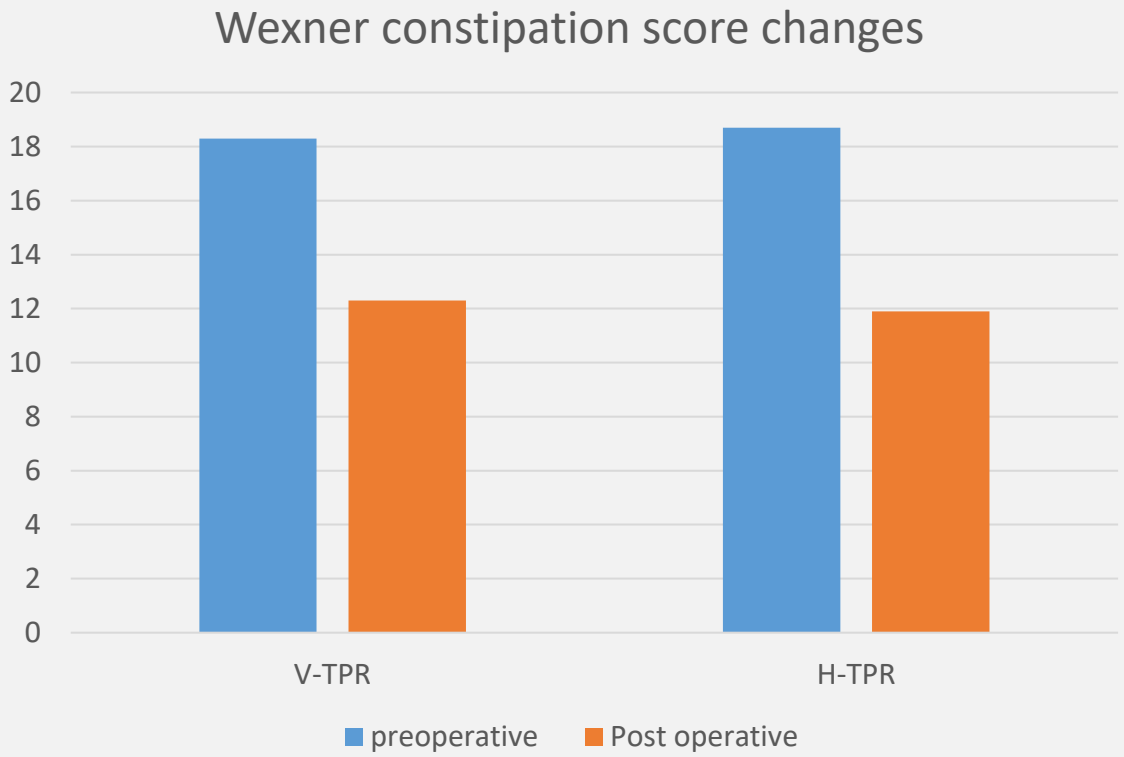
Results

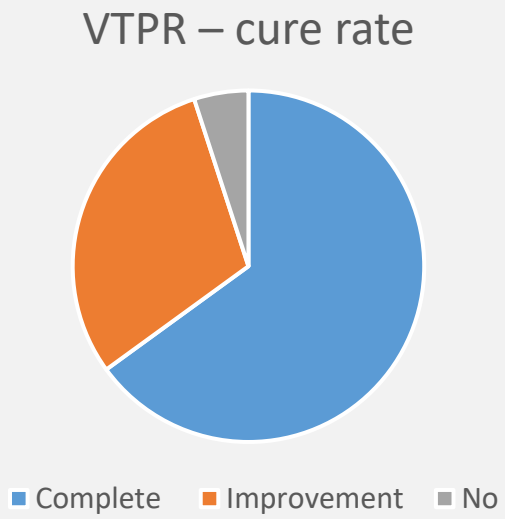
Patients' characteristics

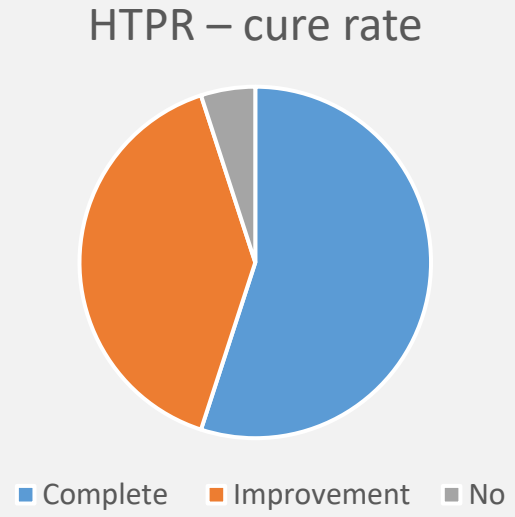
Variable		V-TPR (mean ± SD)	H-TPR (mean ± SD)	P-value
Mean age in years		44.6 ± 8	45.2 ± 7.4	0.87
Duration of symptoms in months		42.6 ± 14.3	45 ± 14	0.6
Mean preoperative Wexner Constipation Score		18.3 ± 3.8	18.7 ± 1.3	0.6
Number of vaginal deliveries n (%)	0	3 (15)	6 (30)	0.057
	1	2 (10)	6 (30)	
	2	13 (65)	6 (30)	
	>2	2 (10)	2 (10)	
Mean rectocele size in defecography (cm)		4.8 ± 0.7	4.6 ± 0.8	0.405
Anal manometry				
-MRP (mmHg)		63.3 ± 7	60.4 ± 7.7	0.22
-MSP (mmHg)		123 ± 12.8	122.4 ± 14.6	0.89
- DDV (ml)		138.5 ± 20.6	151.5 ± 22.1	0.06
-MTV (ml)		186 ± 44.9	183.5 ± 48	0.87

Results

Clinical improvement in ODS symptoms

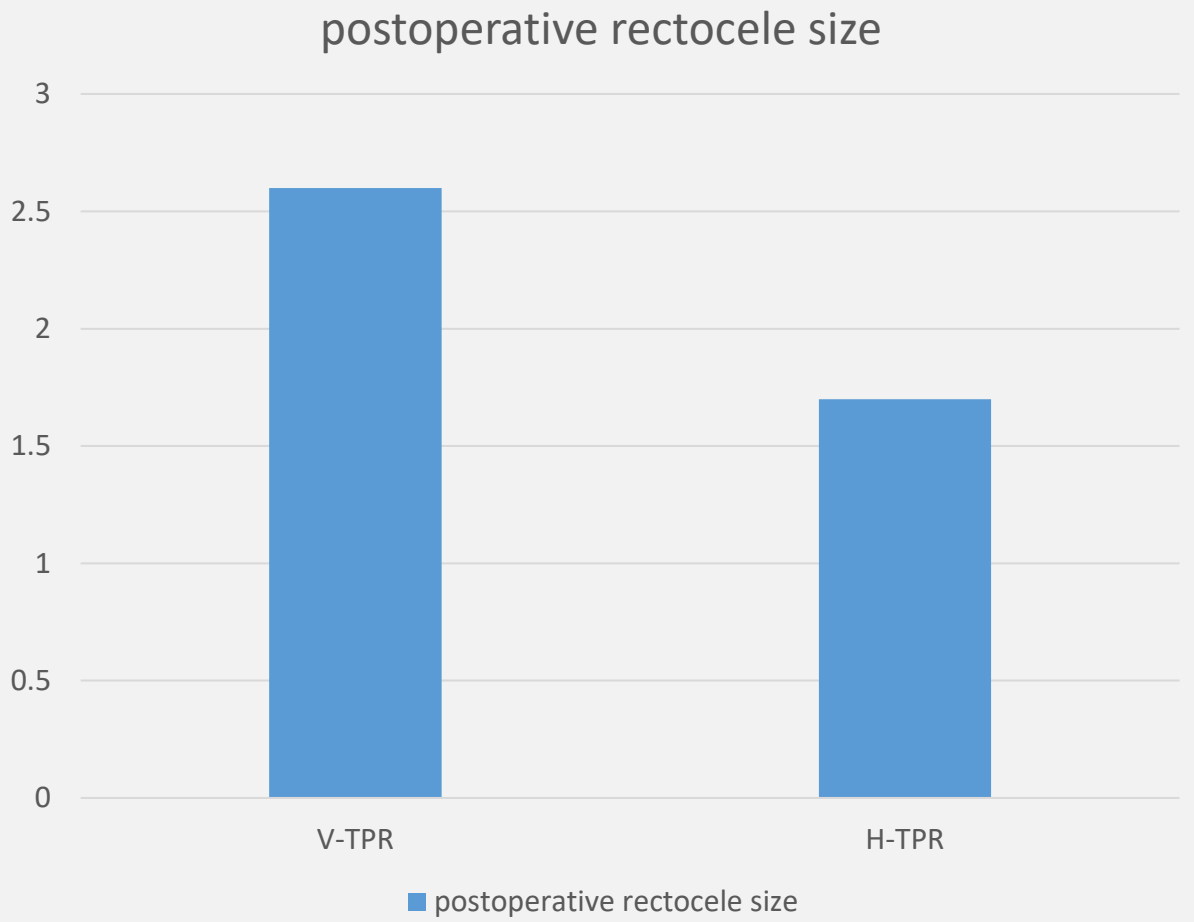






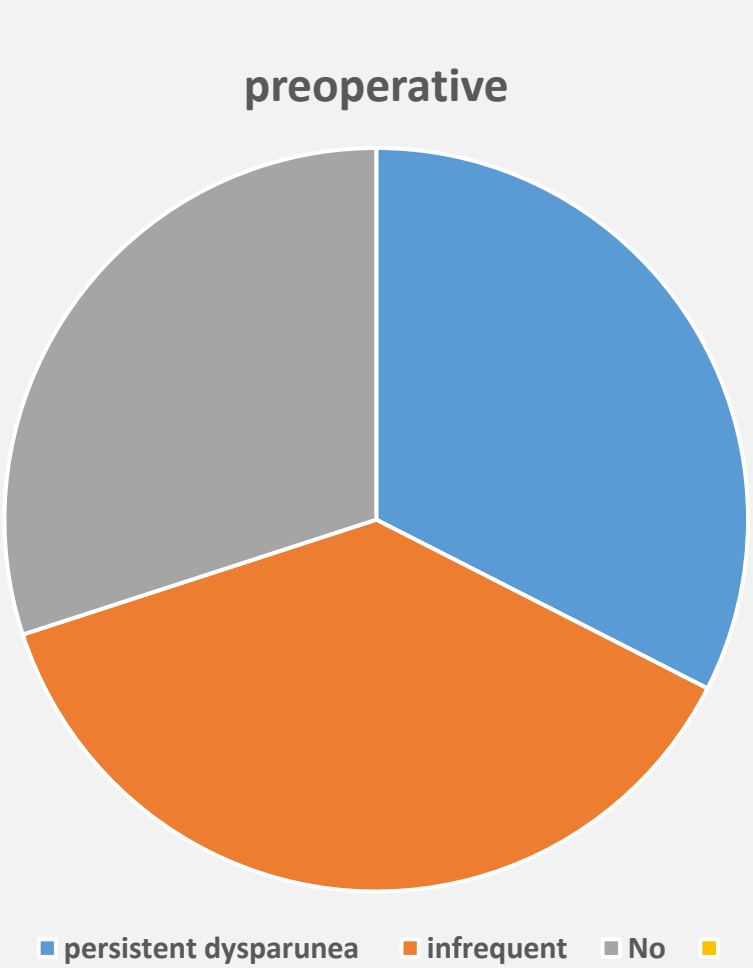
Results

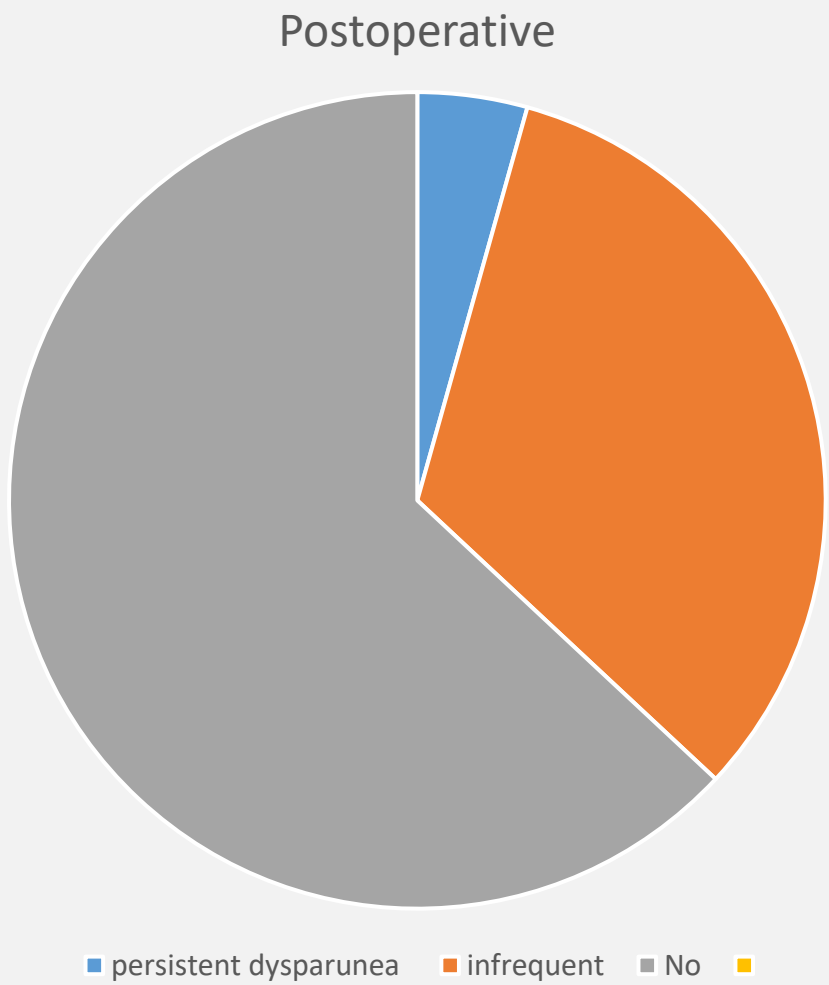
Change in rectocele size in follow-up defecography



Results

Improvement in dyspareunia





Results

Changes in the manometric parameters

- There were no significant differences in the manometeric parameters between the two groups after surgery

Conclusions

The horizontal plication is better than vertical plication in TPR in :

- A greater reduction in the rectocele size .
- Higher improvement in dyspareunia .

Both techniques had similar results in postoperative

- Wexner constipation score improvement.
- Manometric changes.
- Operation time , complications.
- Recurrence and hospital stay .