VIETNAM – FRANCE – ASIA PACIFIC CONGRESS OF GYNECOLOGY AND OBSTETRICS (2018)

THE OUTCOMES OF MULTICOMPARTMENT SURGERY IN THE TREATMENT OF TRANSVERSE CERVICAL RING DEFECTS

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1. INTRODUCTION

1. Transverse cervical ring defect → Pelvic organ prolapse (POP): (urogenital and anorectal organs) → multicompartment diseases

2. Diagnosis: clinic (TAPE) + MRI + CAD → early or late stage

3. Treatment (Integral theory) → multicompartment surgery

- **Transvaginal** and **transanal approaches**

Objectives:

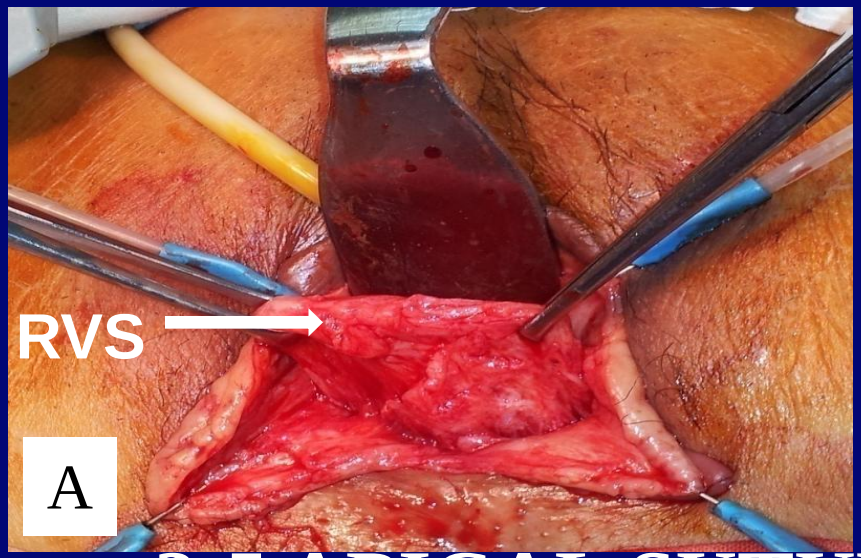
1. To determine early and late complications of surgical methods
2. To determine the long-term outcome of the improvement in Symptoms of Pelvic organ prolapse and chronic constipation

2. SUBJECTS AND METHODS

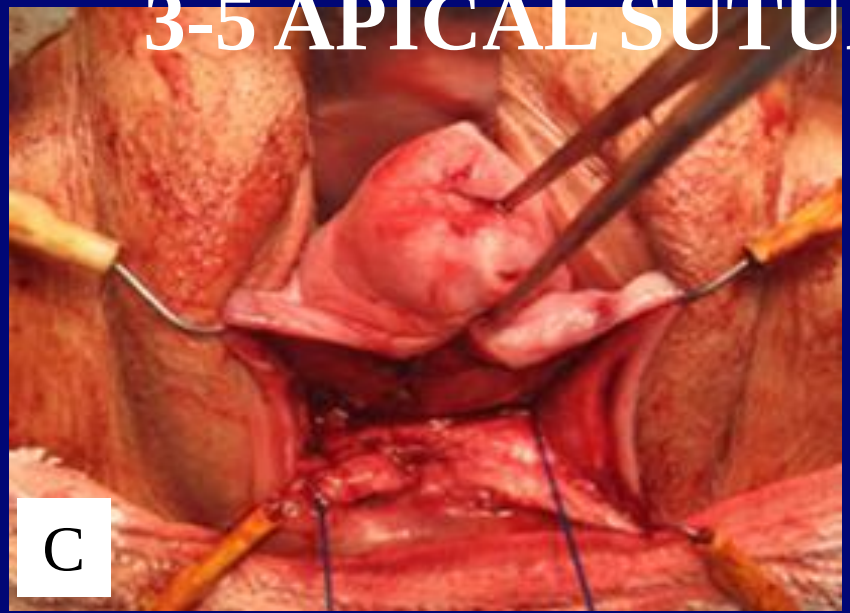
1	RESEARCH DESIGN	Case serie report
2	SUBJECTS	Female; Pelvic organ prolapse + Constipation (ODS)
3	LOCATION AND TIMELINE	Trieu An Hospital; 2012 - 2016
4	INCLUSION CRITERIA	Pelvic organ prolapse (Baden-Walker) + Constipation (ROME III)
5	EXCLUSION CRITERIA	Chronic diseases; elderly; constipation caused by medication/others,…
6	TREATMENT METHODS	Multicompartment surgery
7	INTRA - POST OPERATION DATA	
8	EVALUATION OF SURGICAL RESULTS	
9	DATA PROCESSING & STATISTICAL ANALYSIS	

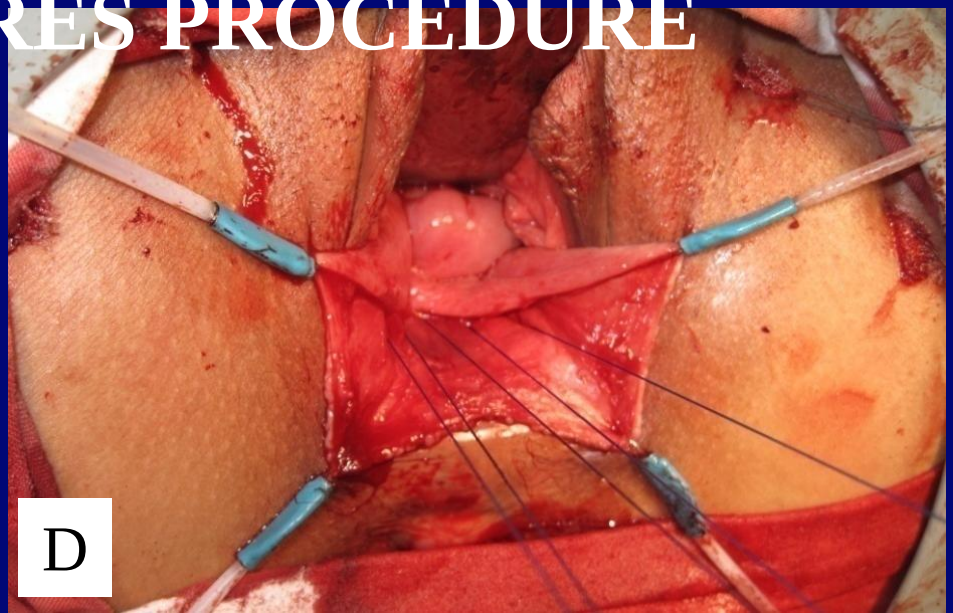
1. TRANSVAGINAL APPROACH

EARLY STAGE: CERVICAL RING DEFECT REPAIRE



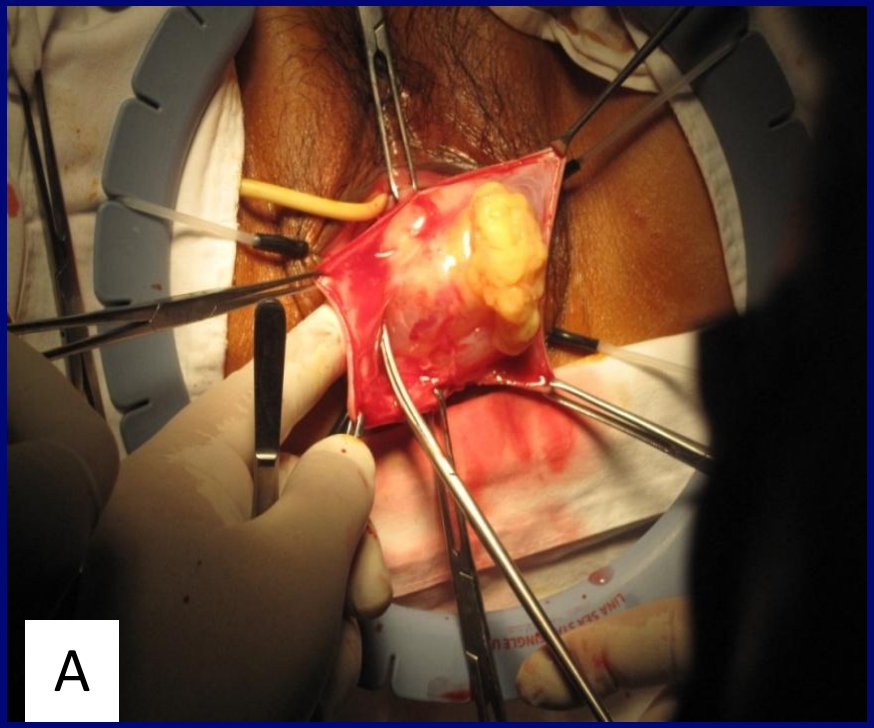
3-5 APICAL SUTURES PROCEDURE



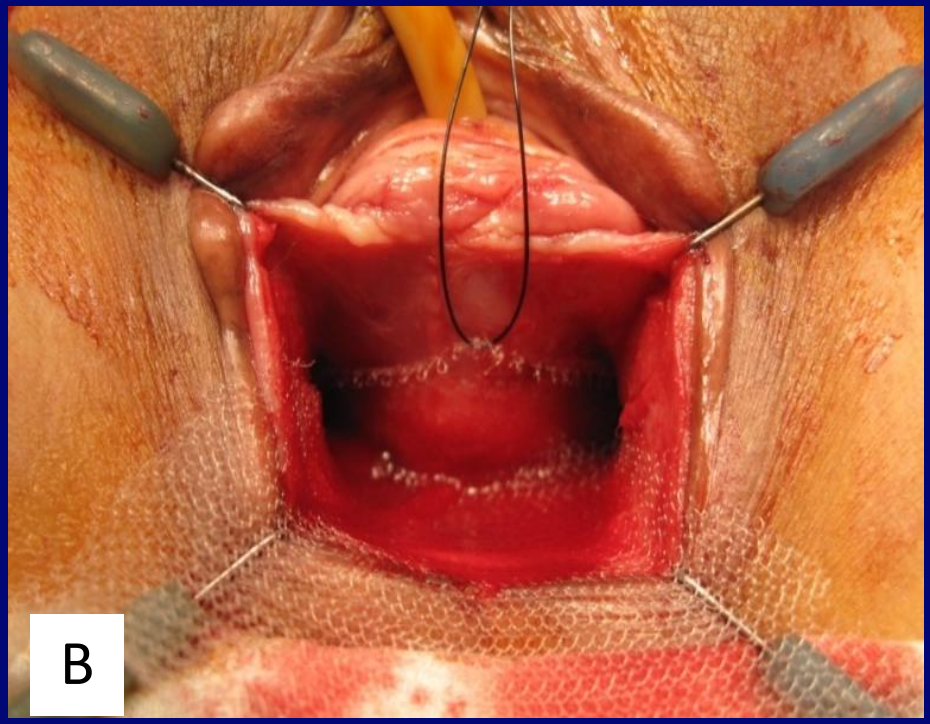


POLYPROPYLENE MESH PROCEDURE

LATER STAGE: HERNIA REPAIR + REPLACE RECTOVAGINAL FASCIA



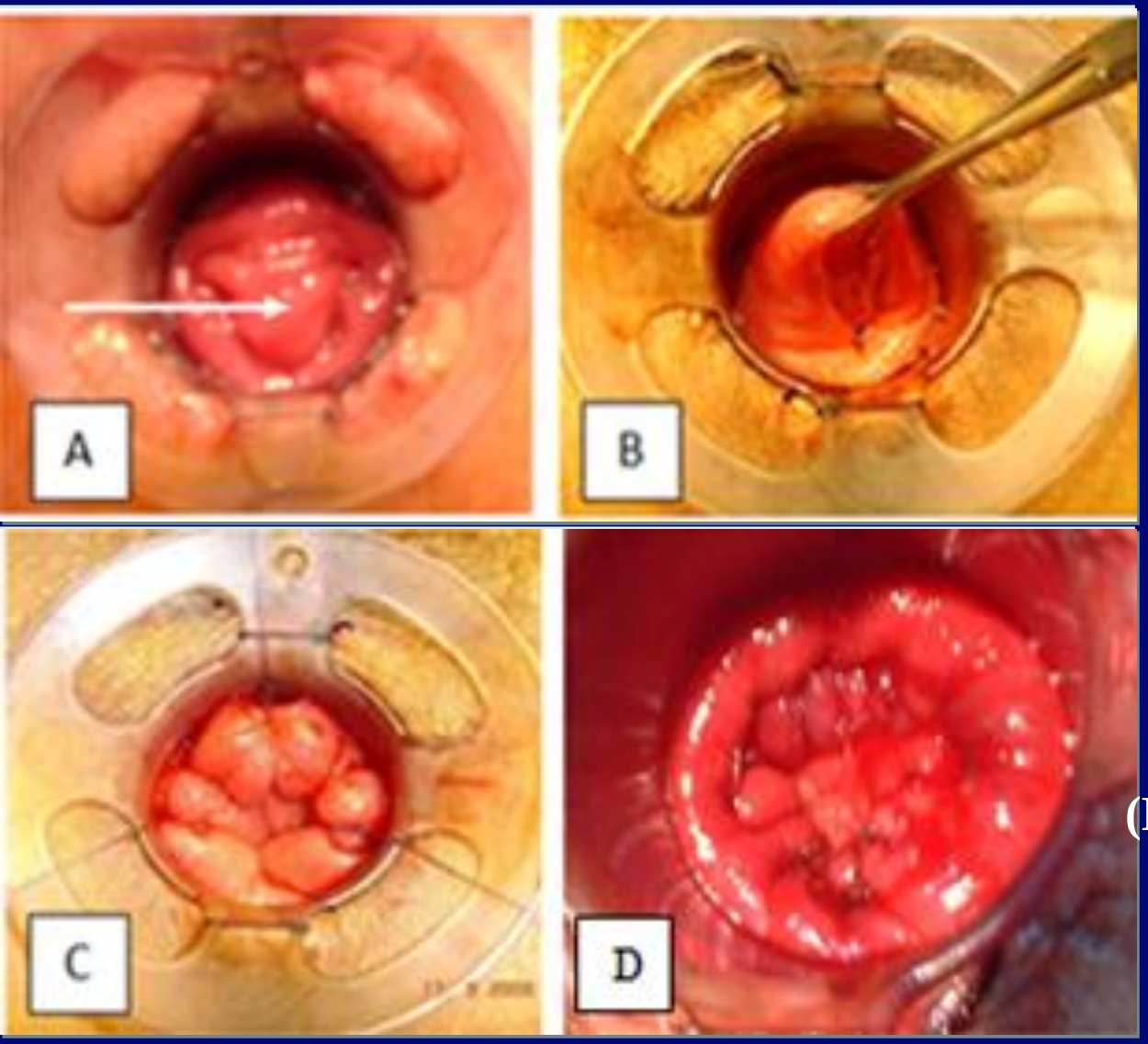
PERITONEOCELE STAGE II
(HERNIA EXPOSE AND REPAIR)



POST VAGINAL WALL MESH
(PROLENE SOFT MESH ®)

2. TRANSANAL: ANORECTAL REPAIR

REPAIR HIGH RECTOCELE + INTERNAL MUCORECTAL PROLAPSE



(A) INPUT CAD 33

(B) ANT. RECTOCELE

(C) OBLIGATED SEW OF RECTOCELE(ANT WALL)

(D) MUSCOSAL PLICATION OF POST. RECTAL WALL

3. RESULTS

1. CHARACTERISTICS: n = 94

- **AGE: mean 44 + 8,24 (25 - 89); 82,8% > 40Y**
- **PAST OBSTETRIC HISTORY: 5,32% 1 parity; 94,68% parity ≥ 2 times**
- **DURATION: mean 6,39 ± 4,52 years (1 – 40)**

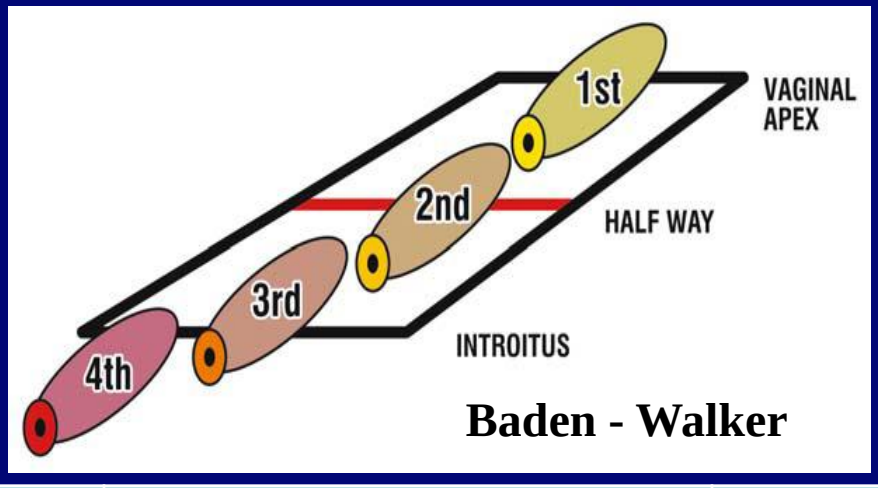
2. SYMPTOMS:

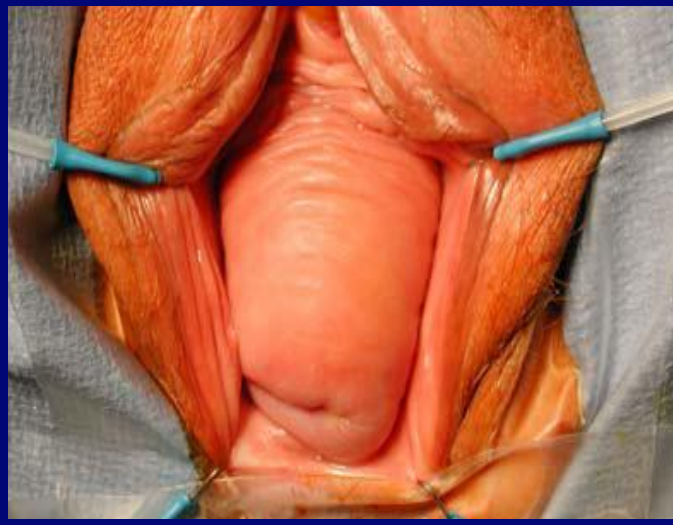
- **SYMPTOMS OF POP: - 100% feel bulbs/ vaginal prolapse**
  (Baden-Walker) **- 93,6% feel pressure on pelvis/ vagina**
- **SYMPTOMS OF DEFECATION (CONSTIPATION)**
  ROME III + BALLOON EXPULSION TEST (BET) > 50 ml (+)

3. DIAGNOSIS

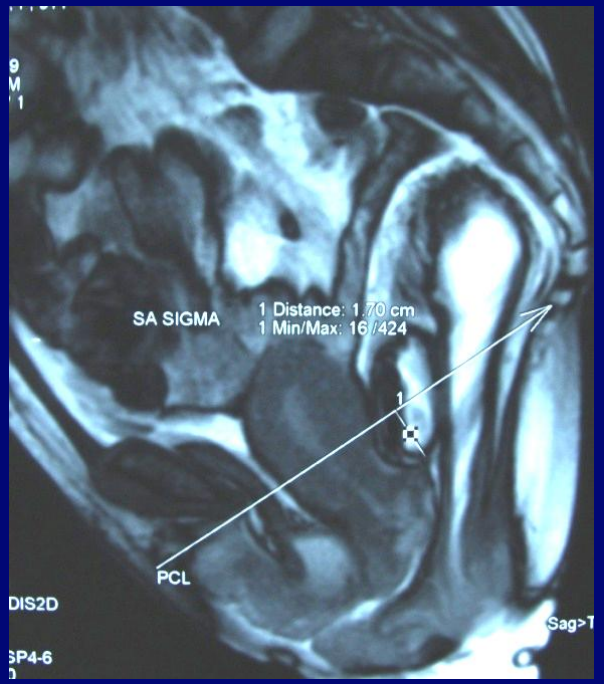
3.1 ANTERIOR COMPARTMENT PROLAPSE (GENITOURINARY SYSTEM)

- **Table 1: Uterine prolapse grade**





STAGE	Number of patients	%
0	2	2,2
1	40	42,5
2	37	39,4
3	15 (6 + 9 Vaginal cuff)	15,9
Total	94	100,0



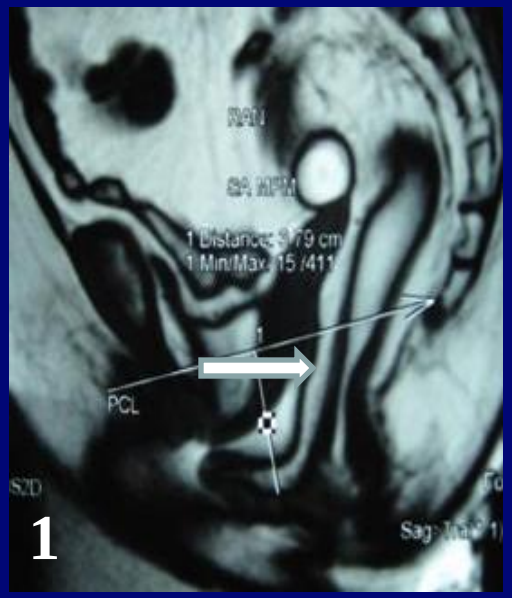
- **Table 2: Classification of apical vaginal prolapse**

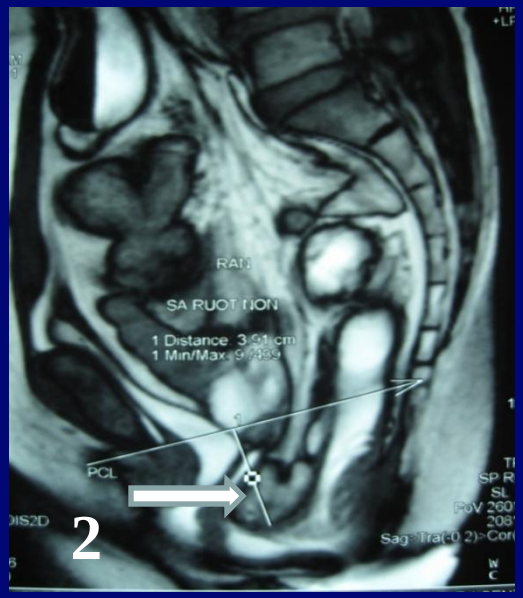
CLASSIFICATION	No. of Pt	%
Peritoneocele (1)	13	13,83
Enterocele (2)	9	9,57
Sigmoidocele	3	3,19
Vaginal cuff prolapsus (3)	9	9,57
Total	34/94	36,17

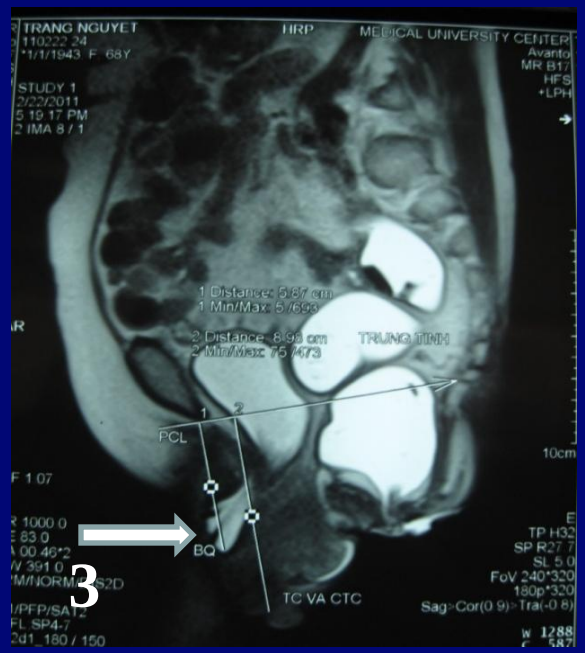
STAGE 1: 14

STAGE 2: 20

MRI DEFECOGRAPHY BEFORE OPERATION







3.2 POST. COMPARTMENT PROLAPSE (ANORECTUM)

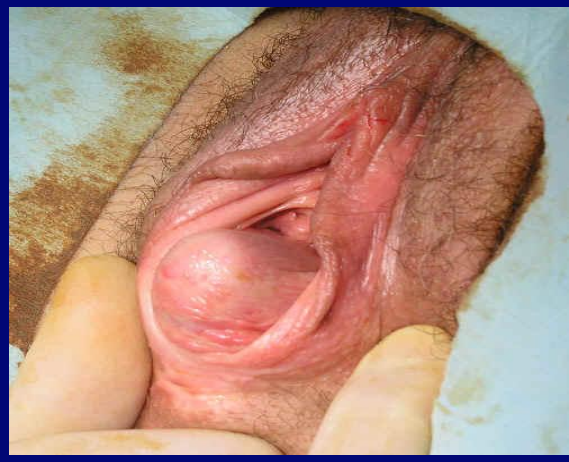
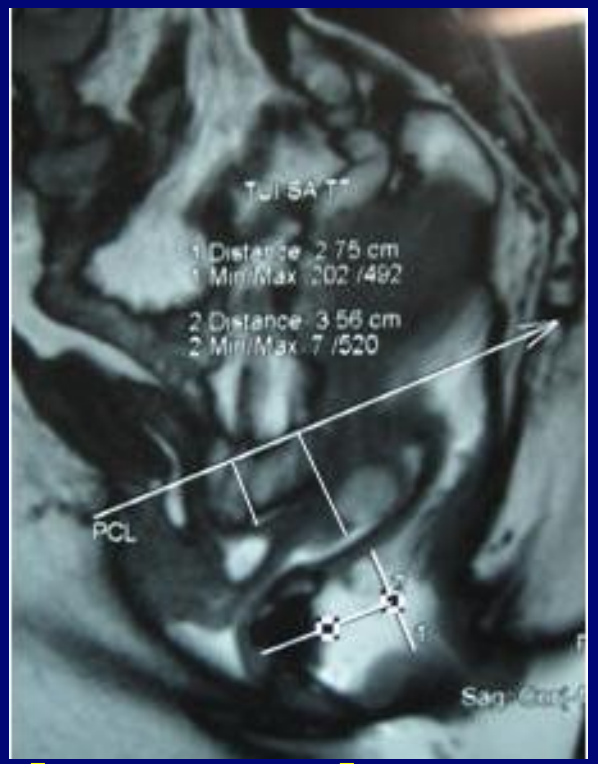


Table 3: HIGH RECTOCELE Classification

High rectocele	MRI Defecography (R)	No. of Pt	%
Grade 1	2 cm < R ≤ 3 cm	24	25,5
Grade 2	3 cm < R ≤ 4 cm	59	62,8
Grade 3	4 cm < R	11	11,7
Total		94	100,0



100% cases have internal mucorectal prolapse grade 1, 2 (CAD 33)

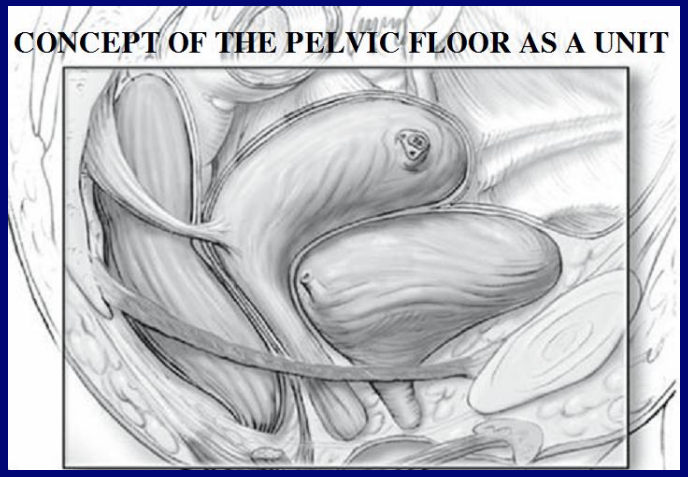
- **SYMPTOMS OF DEFECATION DISORDERS (CHRONIC CONSTIPATION)**
  ROME III + BALLOON EXPULSION TEST (BET) > 50 ml (+)

DEFECATION DISORDERS	No. of Pt	%
Obstructed defecation sensation	94	100,0
Incomplete defecation	94	100,0
Tenesmus	85	90,42
Anal pain	94	100,0
Lumpy and hard stools	86	91,49
Defecation < 3 times / week	86	91,49
Need help to empty rectum (hands, medication)	94	100,0

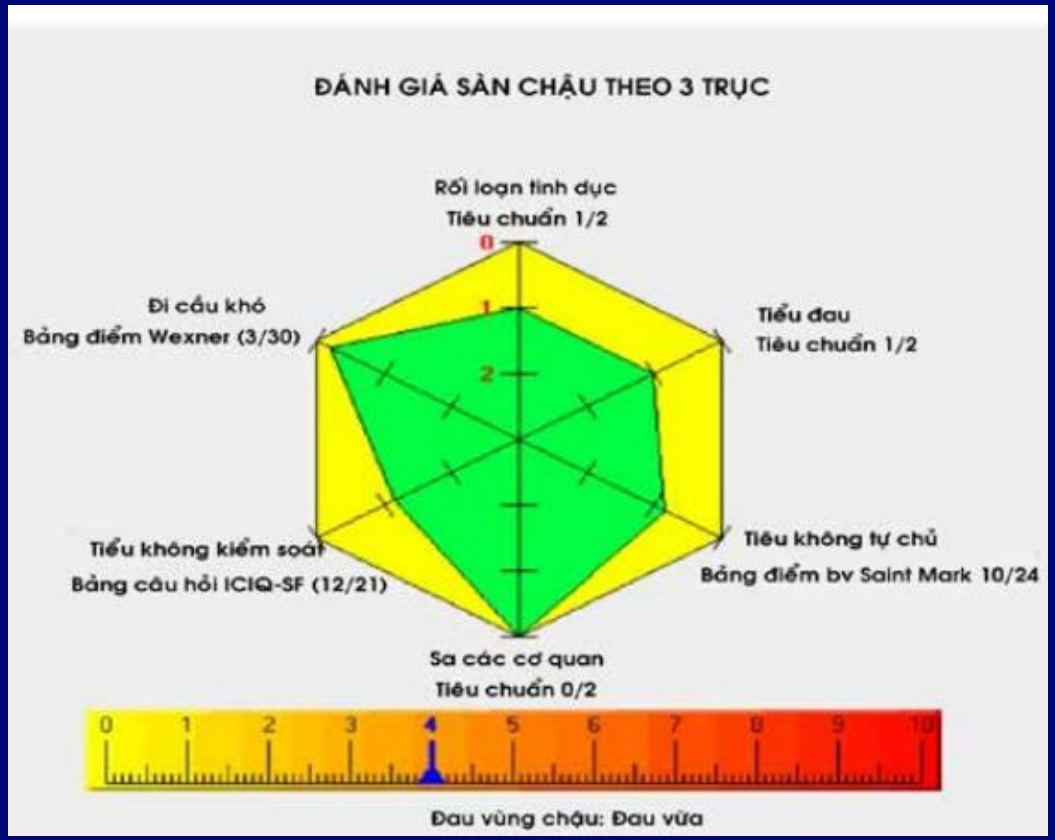
4. DISCUSSION

PRINCIPLE OF DIAGNOSIS AND TREATMENT

➡ INTEGRAL THEORY



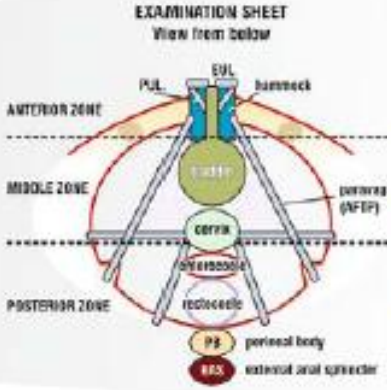
CONCEPT OF THE PELVIC FLOOR AS A UNIT



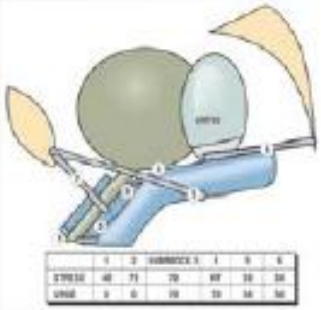
THREE AXIS PERINEAL EVALUATION - TAPE

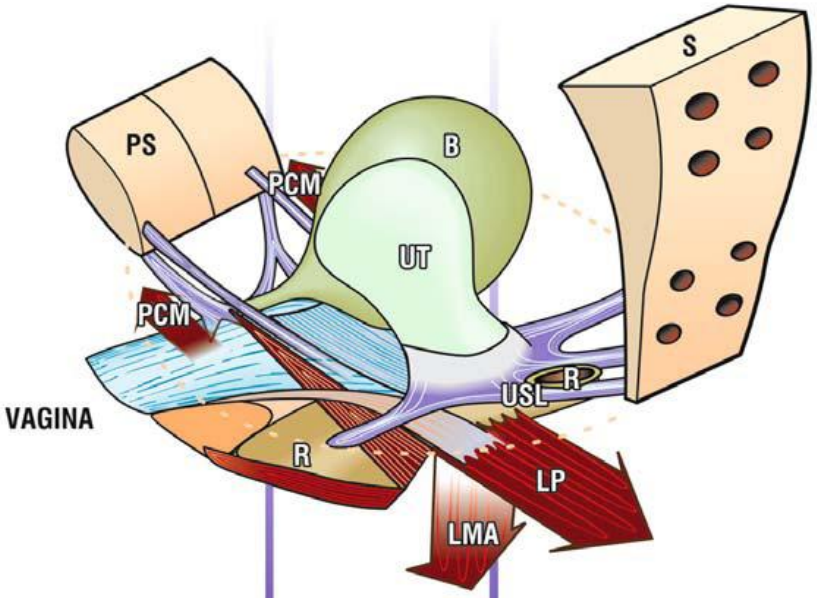
diagnostic algorithm suggests zone of damage and guides examination

examination confirms zone of damage



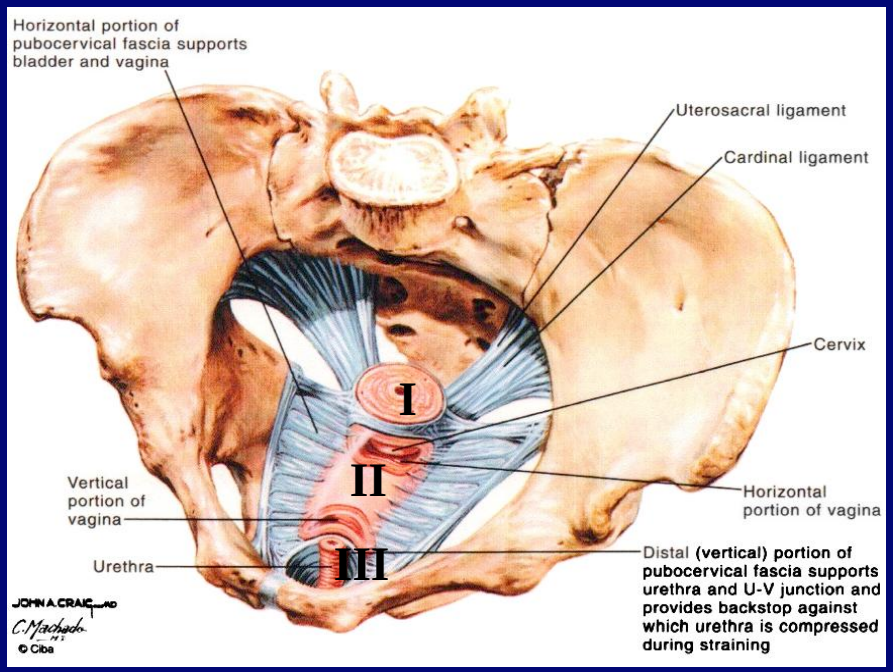
"simulated operations" simulate intended operations by supporting specific connective tissue structures

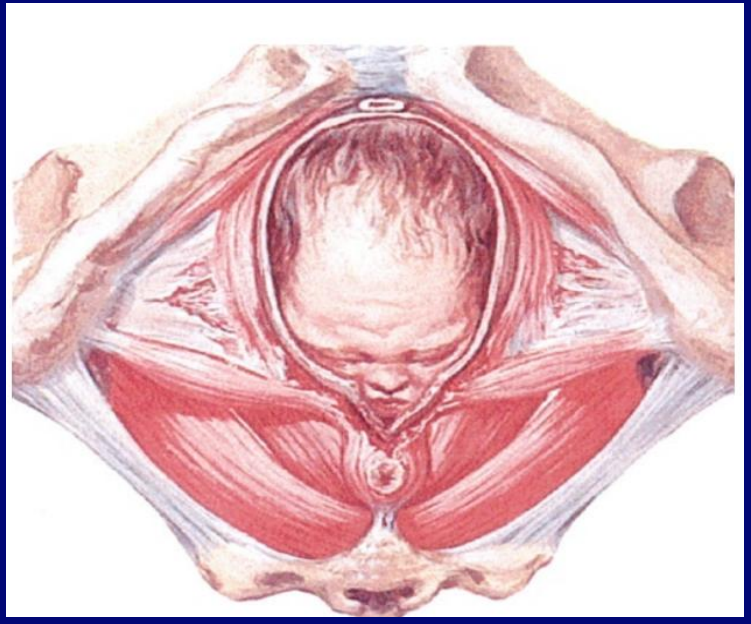


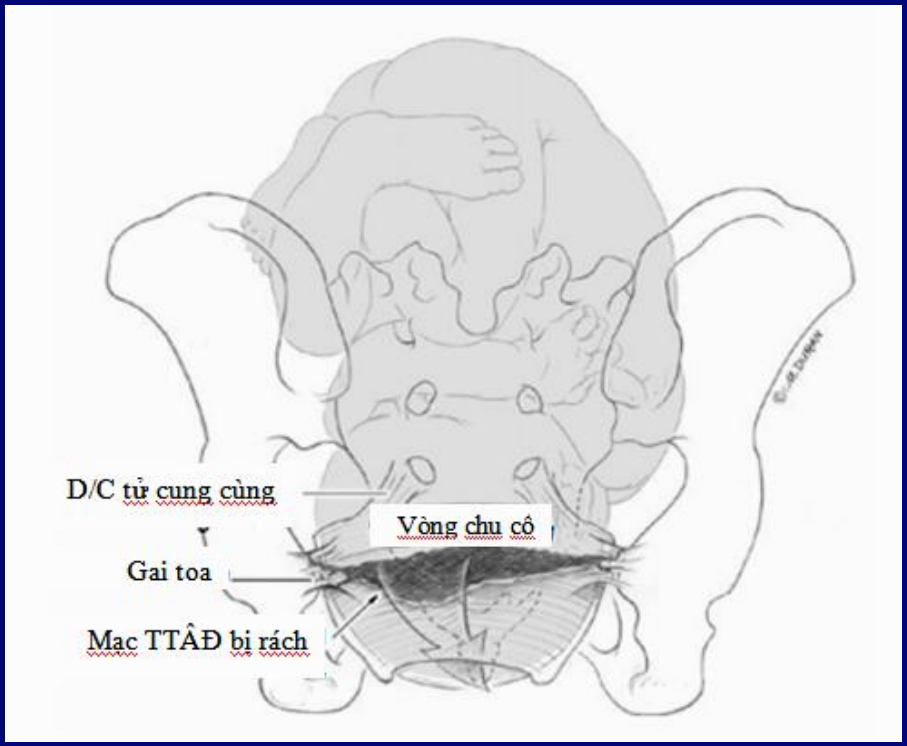


ANTERIOR	MIDDLE	POSTERIOR
PUL Hammock EUL	Cystocoele Para-vaginal high cystocoele	Enterocoele Uterine prolapse Vaginal vault prolapse
Stress incontinence	PCF CX RING ATFP	USL RVF PB
	abnormal emptying	
	frequency and urgency	
		nocturia
faecal incontinence		
		pelvic pain

MECHANISM OF DAMAGES IN TRANSVERSE CEVICAL RING DEFECT



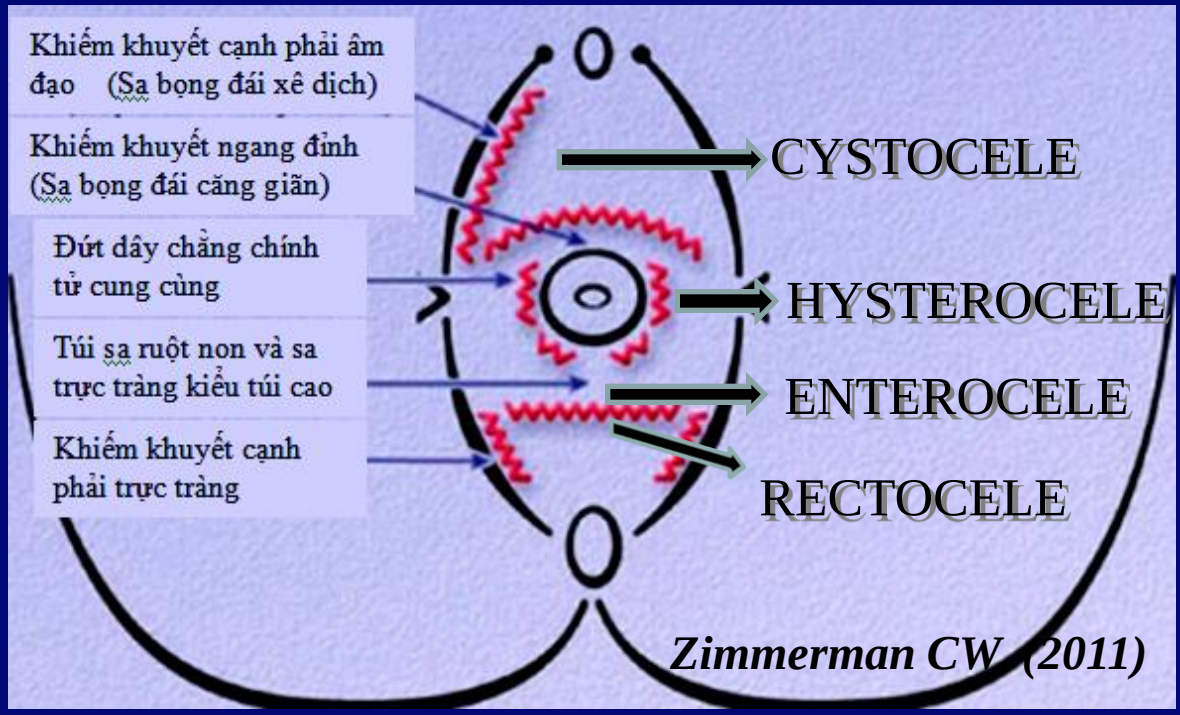


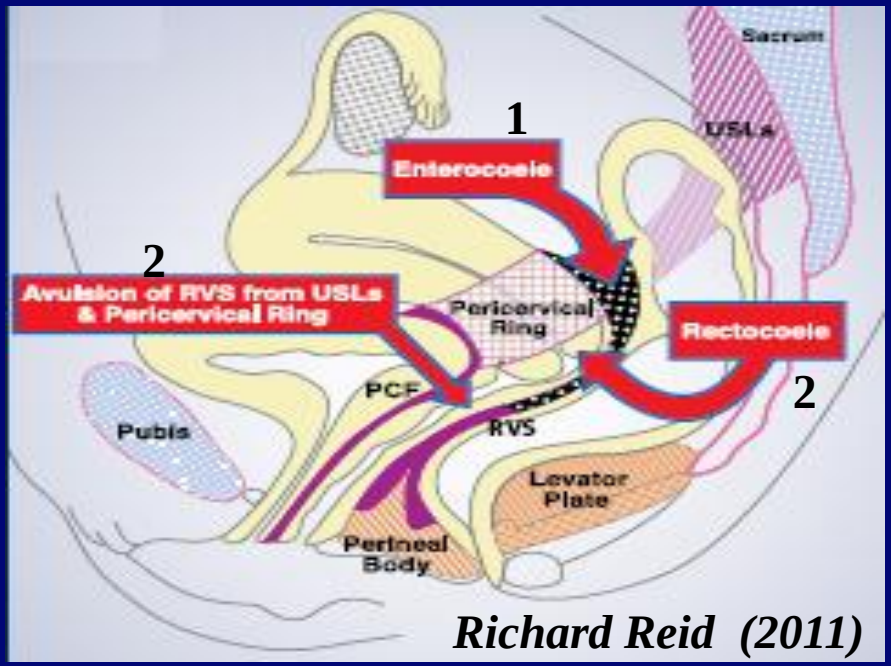


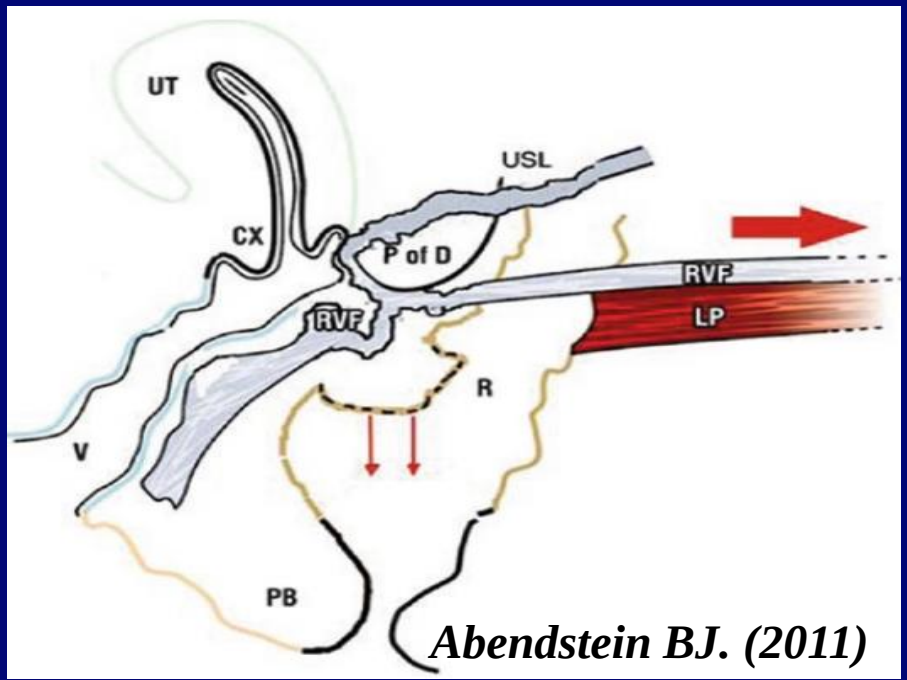
PUSH DURING VAGINAL DELIVERY

DAMAGE IN DELANCEY I

MULTICOMPART MENT INJURIES







SURGICAL RESULTS

1. COMPLICATIONS

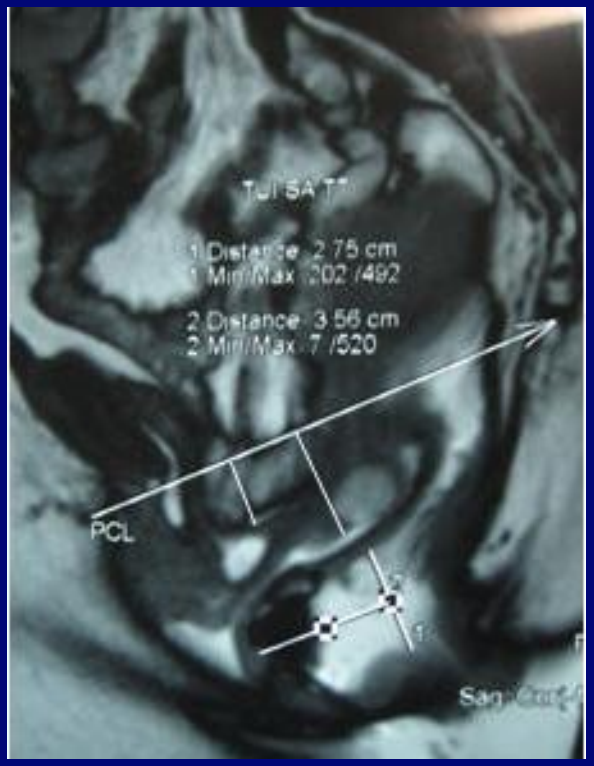
COMPLICATION	Number of Pt	%
Urine retention acquired catheterization	5	5,3
Hematoma in posterior vaginal wall	1	1,1
Surgical wound infection	1	1,1
Mesh erosion/ejection (Prolene mesh ®)	1/52	1,9
Total	8	9,4

2. IMPROVEMENT IN SYMPTOMS OF POP

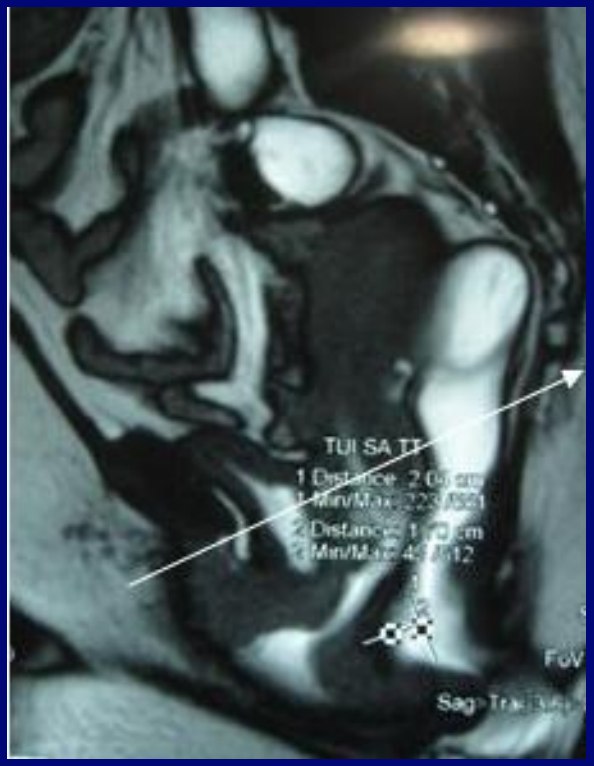
Symptoms of posterior vaginal wall prolapse	Pre-op	Post operative improvement	%
Vaginal bulbs or propulsion	94	94	100,0
Pressure sensation on pelvis	88	83	94,32

TRƯỚC MỔ (18/6/2010) SAU MỔ (23/9/2010)

RESULTS IN MRI DEFECOGRAPHY



PRE-OP : 18/6/2014



POST-OP: 23/9/2014

3. IMPROVEMENT IN SYMPTOMS OF DEFECATION DISORDERS

(ROME III)

CONSTIPATION	Pre-op	Post-op improvement	%
Obstructed defecation sensation	94	88	93,6
Incomplete defecation	94	88	93,6
Tenesmus	85	80	94,1
Anal pain	94	94	100,0
Lumpy and hard stools	86	86	100,0
Defecation < 3 times / week	86	82	95,3
Need help to empty rectum (hands/medication/enema)	94	94	100,0

4. PATIENTS' LEVEL OF SATISFACTION

LEVEL	Patient	%
Good	88	93,6
Moderate	5	15,3
Poor	1	1,1

- GOOD: completely satisfied
- MODERATE: sometimes have difficult defecation + help with laxatives
- POOR: not satisfied, require reoperation

CONCLUSION

- Transverse cervical ring defects are multicompartment (anterior + posterior)
- Diagnosis: Clinic (integral theory -TAPE) + MRI defecography + CAD (intra-operation)
- Concomittant surgery: repair accurately injured anatomical structures → functional rehabilitation
- Less complications in and post operation
- Results: symptoms improvement ≥ 93,6 %
- Research topic is neccesary to continue