702

Kamimura Y[1], Fukuda M[1], Takashima H[1], Egawa M[1], Nojima S[2], Tabata S[3], Nakajima H[3]
1. *Tonami General Hospital Department of Urology,* ***2.*** *Tonami General Hospital Department of Obstetrics and Gynecology,* ***3.*** *Tonami General Hospital Department of Coloproctology*

ANATOMICAL OUTCOME OF TENSION-FREE VAGINAL MESH PROCEDURE FOR POSTERIOR VAGINAL WALL PROLAPSE: EVALUATION WITH POP-Q SYSTEM AND DEFECOGRAPHY

Hypothesis / aims of study

Constipation, incomplete rectal emptying, the need for manual assistance and excessive straining are often associated with pelvic organ prolapse (POP), especially posterior vaginal wall prolapse [1]. Defecography has been suggested to be a helpful diagnostic tool in the work-up of patients with posterior vaginal wall prolapse if surgical repair is being considered [2]. Few data, however, are available about the effect of posterior vaginal wall repair, especially tension-free vaginal mesh (TVM) procedure, on defecography-based pathological findings. The aim of this study is to evaluate the anatomical outcome of TVM procedure for posterior vaginal wall prolapse by POP quantification system (POP-Q) and defecography.

Study design, materials and methods

This is a retrospective case control study. Between January 2008 and September 2009, 57 patients underwent TVM procedures in our hospital. 23 patients (40.4%) reported bowel symptoms suggestive of outlet obstructive constipation associated with POP. We obtained consent for defecography from 14 patients. We excluded 2 patients who underwent both TVM procedure and rectal prolapse suregery simultaneously, leaving 12 patients (21.1%) eligible for the analysis. Median age was 71 years (56 - 86) and mean BMI was 23.8 kg/m^2 (19.9 - 30.6). 2 patients (16.7%) underwent posterior TVM and 10 (83.3%) combined anterior and posterior TVM. As commercial kits are not available in Japan, we trim Gynemesh^{TM} (Ethicon, Somerville, NJ, USA) based on Prolift^{TM} (Ethicon, Somerville, NJ, USA) pattern. Although our procedure was based on the original French TVM group procedure, 2 points were modified: 1) trimming mesh body 2 cm wider than Prolift^{TM} pattern, 2) fixing mesh edge caudal to the perineal body and lateral to the levator ani fascia with absorbable sutures. Patients were evaluated by POP-Q and defecography before and 6 to 12 months after the operation.

Results

Pre-operation:

11 patients (91.7%) had rectocele on POP-Q (stage2: 9, stage3: 1, stage4: 1) and 11 (91.7%) on defecography (grade1: 1, grade2: 7, grade3: 3). 8 patients with rectocele (72.7%) had concomitant pathological findings on defecography. Intra-rectal intussusception (IRI) was the condition most frequently associated with rectocele (54.5%: 6 of 11). Rectocele alone was found in only 3 patients (25.0%).

Post-operation:

Rectocele was improved in all patients evaluated by POP-Q and in 10 patients (90.9%) by defecography. IRI was improved in 5 patients (71.4%). New pathological findings were found in 2 patients on defecography (IRI, and rectal prolapse in one each).

Pre and post operative findings of defecography were summarized in Table1.

Interpretation of results

First, our data showed that a high anatomical cure rate of rectocele was achieved by our TVM procedure. Second, many patients with rectocele might have other anorectal pathologies detected by defecography. Finally, the improvement rate of IRI was inferior to that of rectocele by our TVM procedure.

Concluding message

The TVM procedure is a reliable method for restoring rectocele but not for other anorectal pathologies such as IRI. As previously reported [3], the repair of the posterior vaginal wall prolapse does not correlate with improvement of bowel symptoms. One of the reasons for this discrepancy may be an inability to correct anorectal pathologies other than rectocele.

Table1: Pre and post operative findings of defecography.

Case	**Pre operation**		**Post operation**	
	Rectocele grade	Other findings	Rectocele grade	Other findings
1	2	IRI*	1	IRI (improve)
2	2	-	1	IRI

*Intra-	**3**	3	-	0	Rectal prolapse	rectal
	4	2	IRI	1	IRI (improve)	
	5	2	-	2	-	
	6	2	IRI DPS**	1	IRI (improve) DPS (improve)	
	7	0	IRI DPS	0	IRI (No Change) DPS(improve)	
	8	2	IRI	1	-	
	9	3	DPS	1	DPS (improve)	
	10	2	IRI	0	IRI (improve)	
	11	1	Sigmoidcele	0	Sigmoidcele (No change)	
	12	3	IRI	0	IRI (No Change)	

intussusception, ** Descending perineal syndrome

References

1. Diegesu GA, Chaliha C, Salvatores S, Hutchings A, Khullar V. BJOG. 2005 Jul;112(7):971-6.
2. Groenendijk AG, van der Hulst VP, Birnie E, Bonsel GJ. Int Urogynecol J Pelvic Floor Dysfunct. 2008 Sep;19(9):1291-7.
3. Cundiff GW, Fenner D. Obstet Gynecol. 2004 Dec;104(6):1403-21.

Specify source of funding or grant	**NONE**
Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**No**
This study did not require ethics committee approval because	**this is retrospective case control study and patients' private information isn't disclosed. We obtained consent for this study publication from all participants in this study.**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**