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ARE TENSION-FREE VAGINAL MESH (TVM) PROCEDURES SAFE AND EFFICIENT IN PATIENT SUFFERING RECURRENT PELVIC ORGAN PROLAPSE?

Hypothesis / aims of study

A major problem for the pelvic organ prolapse (POP) repair has been reported to be a high recurrence rate (10-30%). To avoid the recurrence, synthetic mesh is now widely used in the POP repair such as tension-free vaginal mesh (TVM) procedures. As for the reconstruction of pelvic floor in recurrent POP patients, TVM procedures seem to be one of the most competent measures as of today. However, there are few reports referring to the efficacy and safeness of the TVM procedure in the recurrent POP.

An aim of this study was to examine the efficacy and safeness of TVM procedures applied for the recurrent POP.

Study design / Materials and methods

Eighty patients who underwent TVM surgery for recurrent POP during from June 2005 to May 2009 (Group1) were investigated retrospectively. Previous operations were simple hysterectomy (51 cases), anterior and posterior colporrhaphy (38 cases), Manchester's operation (5 cases), proctocele repair (6 cases), Le Fort's operation (5 cases), anterior colporrhaphy (4 cases), McCall's operation (2 cases) and others (4 cases). The outcomes were compared to those in 719 POP patients who underwent TVM surgery as the first-ever operation (Group2).

AS the surgical repair, TVM procedures with polypropylene mesh reported by TVM group in France (1) were performed. For the Group1, anterior TVM (20 cases), posterior TVM (19 cases) and total TVM (41 cases) were employed. Meanwhile, for the Group 2, anterior TVM (397), posterior TVM (36) and total TVM (286) were performed. Statistical analyses were performed with Student's t-test.

Results

Operating time for each TVM procedures were shown in Table 1. There were no significant differences in operating time between Group1 and Group2. Perioperative complications were listed in Table 2. There was no critical complication in Group1 as well as in Group2. Dysuria was defined as the condition showing residual urine of more than 100cc and needed Intermittent self-catheterisation. None of the dysuria listed here were present at 1 year after operation. As for hematomas, there was no need for surgical treatment though there was one case in Group2 needed blood transfusion 1 day after surgery. The POP-Q values at 1 year after TVM operation were shown in Fig. 1. POP-Q values in Group1 were almost the same as those in Group2. The recurrence after TVM were listed in Table 3. We define the recurrence as POP measuring over POP-Q stage2 and required repair. Same site means anterior POP after anterior-TVM or posterior POP after posterior-TVM. Other site means anterior POP after posterior-TVM or posterior POP after anterior-TVM.

Table1 Operating time (min.)

	Group1	Group2	p-value
Anterior-TVM	49.9±13.9	47.3±17.0	N.S
Posterior-TVM	48.6±14.7	50.9±19.2	N.S.
Total-TVM	92.0±25.3	86.5±19.2	N.S.

Table2 Perioperative complications

	Group1 (n=80)	Group2 (n=719)	p-value
Bladder injury	1 (1.3%)	13 (1.8%)	N.S.
Hematoma	1 (1.3%)	20 (2.8%)	N.S.
Rectal injury	0 (0.0%)	1 (0.1%)	N.S.
Dysuria	9 (11.3%)	95 (13.1%)	N.S.

Fig.1 POP-Q 1year after TVM

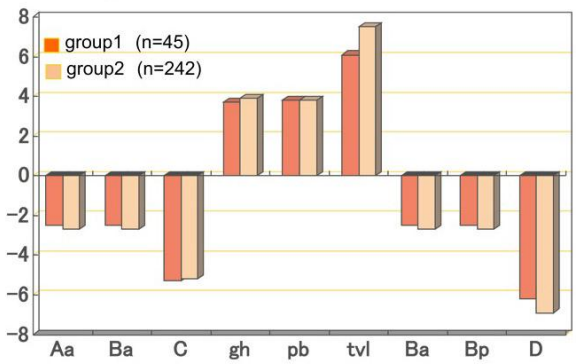

Table 3 Recurrence after TVM operation

	Group1 (n=80)	Group2 (n=719)	p-value
Same site	0 (0.0%)	2 (0.3%)	N.S.
Other site	4 (5.0%)	5 (0.7%)	p<0.05
Cervix	1(1.3%)	4 (0.6%)	N.S.
Total	5 (6.3%)	11 (1.5%)	p<0.05)

Interpretation of results

Tension-free vaginal mesh procedures for the patients suffering recurrent POP were performed almost as safely and efficiently as those for patients who underwent TVM surgery as the first-ever operations. The fact that the recurrence in the recurrent group (most of them were seen in the other site) were significant higher than the first-ever group suggested that the balance of the pelvic floor is likely to be more sensitive in the recurrent group.

Concluding message

Tension-free vaginal mesh (TVM) procedures are safe and efficient in patient suffering recurrent pelvic organ prolapse.

References

1. Berrocal J, et al. J Gynecol Obset Biol Reprod 2004.33:577-587

Specify source of funding or grant	**None**
Is this a clinical trial?	**Yes**
Is this study registered in a public clinical trials registry?	**No**
Is this a Randomised Controlled Trial (RCT)?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**Senboku-Fujii hospital ethics committee**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**