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Title: TVT OPERATION: IS IT EFFECTIVE FOR THOSE PATIENTS SUFFERED FROM TYPE III INCONTINENCE?

Aims of Study

TVT operation strengthens function of the pubourethral ligament that keeps urinary continence and can be done with minimally surgical invasiveness under local anesthesia. McGuire was successful in classifying stress urinary incontinence (SUI) into 3 types. SUI type III, intrinsic sphincter deficiency, is characterized by the compromised bladder neck or the compromised internal urethral sphincter and should be treated with sling operation, not with conventional needle suspension procedures. Surgical success rates from Scandinavian countries are excellent, 86 to 90% 3 years later [1,2], while a success rate of the United Kingdom is not so good, 68% 6 months after surgery [3]. Since a prolene tape of the TVT supports the mid-urethra, we have been anxious of its effectiveness for those with SUI type III. We aim to assess whether TVT is of effect for those suffering from SUI type III that has been never reported before.

Patients and Methods

Our prospective multi-center study group on efficacy of TVT surgery has originally recruited 203 patients. Age varied from 31 to 82 with a mean of 57, and a 60-min pad-test ranged from 0 to 498 g/hr (mean of 34.8). 106 of the 203 patients were diagnosed as having SUI type I or type II, and 59 SUI type III. Surgical outcomes have been subjectively and objectively assessed in regard to urinary continence at 3, 12, and 24 months after surgery. Subjective success is consistent with a positive answer to questionnaires of complete continence or only slight leakage with strong physical exercises, while objective one is confirmation of continence with stress test in a lithotomy position or urine loss of less than 2.0 g/hr in a 60-min pad-test. At the time of writing this abstract, only one tenths of the women passed the checkpoint of 24 months. Surgical outcomes were analysed by Kaplan-Meier survival curves.

Results

Kaplan-Meier cumulative continence rates observed 2 years later in 203 patients were 85% for the subjective success and 65% for the objective success, respectively (fig. 1). These 2 curves are not significantly different ($p=0.44$). When SUI types are taken into consideration a 2-year cumulative continence rate objectively evaluated ($n=165$) was only 37% for those with type III and 95% for those with type I + II ($p=0.0006$). However, subjective assessments did not result in significant difference ($p=0.79$) in continence rates of type III, 79%, from type I + II, 89% (fig. 3).

Figure 1:Objective v.s. Subjective

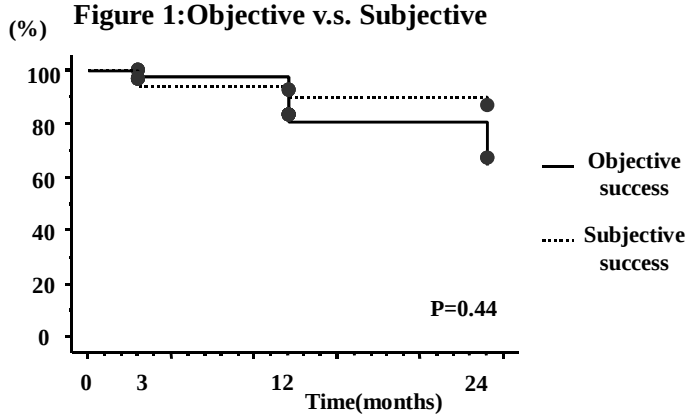


Figure 2:Objective evaluation

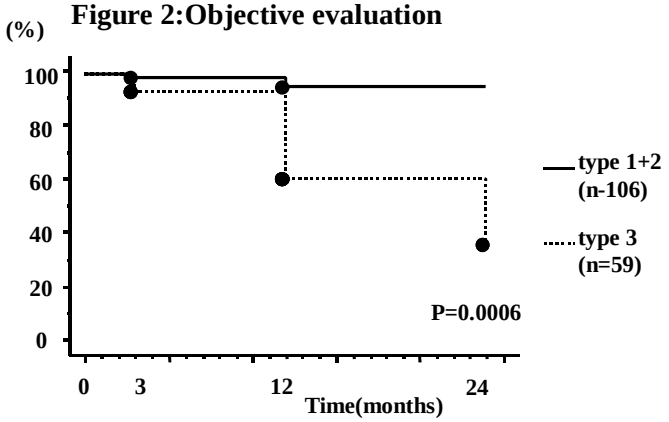
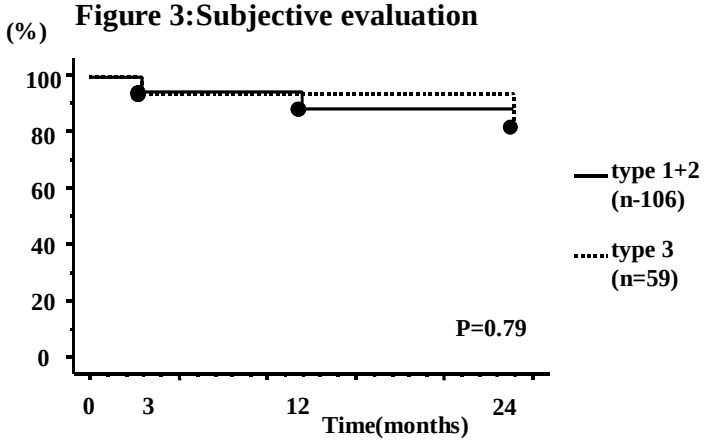


Figure 3:Subjective evaluation



Conclusions

Since surgical outcome of SUI are a matter of QOL, efficacy of a surgery could be judged by continence rate subjectively evaluated. But we do not believe that this is the way to assess the real value of any new surgeries introduced. We found that subjective success rate as a whole was not significantly different from objective one However, if the patients were assessed depending on SUI types, the situation has changed significantly Namely, objective evaluation revealed that those patients with type III resulted in an extremely low success rate

2 years later (fig. 2), but patients' assessment did not show any difference in the 2 groups. It is possible to presume that sling procedure at the mid-urethra, not the bladder neck, with a prolene tape might be the reason why this procedure failed to sustain its continence mechanism. In conclusion, it is safe to say that TVT operation is not effective for those patients suffered from type III incontinence.

References

1. Br J Obstet Gynaecol 106: 345, 1999.
2. Gynecol Obstet Invest 48: 267, 1999.
3. Neurourol Urodynam 19: 386, 2000.