

Abstract

Lower Urinary Tract Symptoms Assessment Before and After Laparoscopic Sacrocolpopexy (LSC) And Tension-Free Vaginal Mesh (TVM) Operation

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Objectives: Laparoscopic sacrocolpopexy (LSC) has been a gold standard procedure for pelvic organ prolapse (POP), and tension-free vaginal mesh (TVM) operation also has been one of the standard measure to treat POP. However, the comparative analysis on the anatomic and functional outcome LSC and TVM are limited. In this study, we focused on lower urinary tract symptoms (LUTS) before and after LSC and TVM.

Method: Two hundred patients underwent LSC and 450 patients underwent TVM between March 2015 and November 2016 were analyzed. LSC were conducted according to Wattiez's methods. Single mesh LSC were performed in 49 cases and double mesh LSC in 151cases. All TVM procedures were performed with self-cut mesh (GynemeshPS® or Polyform®) including 284 cases of anterior TVM (TVM-A), 41 cases of posterior TVM (TVM-P), 48 cases of anterior-posterior TVM (TVM-AP) and 57cases of complete TVM for vault prolapse cases. TVM-A2 and TVM-C4 indicate TVM-A with two mesh arms and TVM-C with 4 mesh arms. The summary of the operative cases is shown in the table 1. Anatomical outcome was assessed with POP-Q. LUTS assessment was made before and 3 months after operation with OABSS, IPSS and ICIQ-SF. Uroflowmetry before and after operation was also assessed.

Results: Median of patient's age was 64 in LSC and 72 in TVM, mean±SD of BMI was 22.1±1.8 in LSC and 24.5±3.1 in TVM. Operating time(min.) was 175.6±40.3 in LSC and 43.3±18.7 in TVM. Blood loss(gram) were 17.6±32.5gr in LSC and 29.5±52.0 in TVM. Residual urine volume more than 100ml after one week were observed in 7 cases in TVM, no cases in LSC. As for uroflowmetry, no significant difference was seen between LSC and TVM. Total score of OABSS decreased after both procedures, however no significant difference was observed. In total score and QOL score of ICIQ-SF and IPSS after operation were significantly lower than those before operation in both procedures, however, no significant difference was observed between two procedures. TVT procedures were needed in 11 cases after LSC and 21cases in TVM.

Conclusions: Although voiding symptoms improved and OAB symptoms did not change after LSC and TVM, stress urinary incontinence remained or become exacerbated. Both procedures had some influence on the LUTS symptoms. Further accumulation of data is necessary to analyze the results of LSC and TVM in detail.