

IMPROVEMENTS IN OVERACTIVE BLADDER SYNDROME AFTER POLYPROPYLENE MESH SURGERY FOR CYSTOCELE (FIVE YEARS FOLLOW-UP STUDY)

Hypothesis / aims of study

The International Continence Society (ICS) has defined overactive bladder syndrome (OABS) by the following set of symptoms: "urgency, with or without urge incontinence, usually with urinary frequency and nocturia." OABS and cystocele often coexist.

This study aimed to analyze the changes in the overactive bladder symptom score (OABSS) of women followed-up for 5 year after anterior re pa ir (AP) surgery performed using a polypropylene mesh (TVM:Tension-free Vaginal Mesh). In this surgery, a tape with 4 straps designed for optimum tissue holding ca pa city was fixed to the obturator foramen.

Study design, materials and methods

Thirty-four women were operated using the abovementioned mesh. The OABSS, maximal urinary flow rate (Qmax), and postvoid residual (PVR) volume were evaluated pre- and postsurgery.

Results

We observed significant improvements in the OABSS and quality of life (QOL) scores before and after 1 year of surgery. The surgery was significantly effective in improving urgency, daytime frequency, incontinence, the Qmax, and the PVR volume. No significant change in nocturia was observed postsurgery.

Interpretation of results

This is the first report of the study that evaluates AP with a mesh from the viewpoint of OABS as 5 years follow-up study. We have not compared our 4-strap-mesh operation with other surgeries for cystocele. However, the dramatic changes observed in the patients' conditions during this study suggested that the 4-strap-mesh operation may be potentially effective in pa tients with both cystocele and OABS. According to the integral theory of female urinary incontinence, effective OABS management depends on the changes in the anatomical positions of the pelvic floor organs after the 4-strap-mesh operation. According to this theory, the pelvic floor is divided into 3 zones: anterior, middle, and posterior. Cystocele occurs due to flaccidity of the middle zone tissues; the middle zone can be reinforced by inserting a mesh into the anterior wall. Repositioning of the organs in their normal anatomical positions could be achieved by the 4-strap-mesh operation performed in this study by reinforcing both the anterior and middle zones of the pelvic floor by inserting the 4 straps of the mesh into the obturator membrane. Since the bladder was positioned near its normal anatomical area, the pressure on it was reduced. Therefore, we believe that the 4-strap-mesh operation improves OABS symptoms, pa rticularly those of urgency and incontinence. We think that postoperative improvement in urinary frequency in the pa tients could be attributed to patients' lifestyle changes. Thus, our results suggest that in pa tients with both OABS and cystocele, urinary urgency and incontinence depend on anatomical changes and frequency depends on these patients' lifestyle.

Concluding message

Our study confirmed the efficacy of the propylene mesh introduction surgery for cystocele for OABS treatment.

References

1. Hiroshi Okada

Specify source of funding or grant	No source
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 study was confirmed at the ethics committee of civilian hospital of Yokosuka city in Japan. In this study, we used an acknowledgment method of the Japanese Urological Association.
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes