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Sling Complications

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WRIN Research Briefs

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Key Implications

- Almost half of female military beneficiaries experienced a complication related to sling surgery during the study period. This rate is lower than those rates reported in Medicare beneficiaries.

- The most common type of complication is an urinary tract infection.

- Less than 1% of the patients underwent repeat surgery for treatment failure.

- Additional prolapse surgery did increase the risk of complications at the time of sling surgery.

- As overall complication rates are still high, quality improvement measures to reduce infections are still worth-while.

Background

After childbirth, it is quite common for women to experience stress urinary incontinence, or SUI. SUI is the unintentional loss of urine from the bladder when stress is placed upon it through normal activity and often occurs after childbirth. Because childbirth often weakens muscles around the bladder, women are often not able to prevent urine leakage and must undergo treatment for SUI. Some studies suggest that active duty women may have more SUI than similarly-aged women not in the military. Urinary slings are a common surgical treatment for SUI and are expected to increase by 47%, with over 310,000 women receiving them annually.

The National Institutes of Health (NIH) has recommended that outcomes for SUI research should not only focus on SUI symptoms, but should also include unwanted effects resulting from any intervention. Since then, short-term complications among Medicare beneficiaries have been reported. Dr. Anger and colleagues found that, in the first post-operative year, almost 50% of women experienced a urinary tract infection, 7% experienced bladder outlet obstruction, 9.4% experienced a new diagnosis of pelvic pain, 8% experienced treatment failure requiring a repeat incontinence procedure, and 15% developed urge incontinence.

Focus of Study

The goal of our study was to compare characterize the post-operative complication rates after sling surgery for SUI among TRICARE beneficiaries within military treatment facilities (MTFs) in the United States.

Research Design

Our study examined medical records of over 1,600 women enrolled in the military healthcare system (TRICARE Prime) who underwent either an outpatient or inpatient sling placement for SUI between January 1, 2011, and December 31, 2013. We used these medical records to identify the types of sling procedures these women underwent and whether they suffered any post-surgery complications in the year following their procedures.

We looked at specific postoperative complications such as infection, injury to the bladder, pelvic pain, difficulty emptying the bladder, the need for additional procedures, and repeat incontinence surgery.
We also accounted for issues such as age, other diseases, additional pelvic surgery, and surgeon specialty during our statistical analysis.

**Key Findings**

We found that, during our study period, 1,632 women had sling surgeries. The average age of these women was 47, and, overall, 45.5% of those undergoing sling procedures had at least one postoperative complication. One quarter of the women experienced an urinary tract infection. Less than 10% of the patients experienced a new diagnosis of urgency, a new diagnosis of bladder outlet obstruction, or a new diagnosis of pelvic pain. Less than 1% of the patients underwent repeat surgery for treatment failure. The risk of some complications was increased in women who had additional medical conditions or additional pelvic surgery.

**Discussion**

This study specifically reports on complication rates after sling surgery for SUI within the military health care system. One of the unique findings is that women undergoing sling surgery for SUI in the military health care system are much younger population than other studies have evaluated, with an average age of less than 50 years old. But, the absolute overall complication rate is still high so researchers should still look for ways to decrease postoperative complications. Some other investigators have already investigated risk factors for urinary tract infections after sling procedures and the use of additional antibiotics after surgery. However, further research is needed to determine which option may prove most beneficial to prevent complications after sling surgery.

**45.5% of those undergoing sling procedures had at least one postoperative complication.**

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**Learn More About This Brief**

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**The Study:**

**The Brief:**