

OHTAC Recommendation

Midurethral Slings for Women with Stress Urinary Incontinence

February 21, 2006

OHTAC Ontario
Health Technology
Advisory Committee



Midurethral Slings for Women with Stress Urinary Incontinence

The Ontario Health Technology Advisory Committee (OHTAC) met on February 21, 2006 and reviewed the effectiveness of midurethral slings for women with stress urinary incontinence (SUI). This report began as an update of a previous Medical Advisory Secretariat (MAS) review on tension-free vaginal tape (TVT®) completed in February 2004. As part of the recommendations for the TVT® review, guidelines were to be developed on the most appropriate use of TVT®. Since completion of the TVT® review, many other midurethral slings have become available, and it was decided to conduct a review of all midurethral slings for purposes of developing the guidelines, rather than TVT® alone.

OHTAC Findings

The midurethral sling procedure is a minimally-invasive procedure which is highly effective at reducing the symptoms associated with stress urinary incontinence in women who have failed conservative treatments for SUI, such as pelvic floor muscle therapy and behaviour modification.

Colposuspension (either through an open procedure or laparoscopically) was historically the gold standard surgical intervention for stress urinary incontinence.

There are over 15 different midurethral slings licensed by Health Canada. However, not all of these slings have been reported on in high quality trials in peer-reviewed journals.

Seven randomized controlled trials were identified that compared midurethral slings to colposuspension.

Based on the results of these 7 randomized controlled trials, which all had consistent results, midurethral slings appear to be as effective as open colposuspension, and more effective than laparoscopic colposuspension. The time required for the procedure of insertion of a midurethral sling is significantly shorter than for colposuspension. In addition, the midurethral sling procedure is an outpatient procedure in Ontario, while colposuspension is an inpatient procedure.

Based on the results of the randomized controlled trials, there does not appear to be one type of midurethral sling that is superior to another in terms of effectiveness for

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patients or hospital outcomes (procedure time and length of stay). The trials contained too few subjects to definitively exclude the possibility that one type was superior to another, it is unclear at this time if there are substantial differences in effectiveness between devices.

Although difficult to fully assess at this time because the midurethral slings are new, there may be differences between the midurethral slings in terms of complication rates. The suprapubic and retropubic slings have a rate of bladder perforation of 5%-6%. The transobturator route slings have a rate of bladder perforation of less than 1% and a rate of accidental vaginal perforation of approximately 1%. According to a clinical expert in Ontario the perforations are minor complications that heal naturally without any intervention. The rate of device problem ranges from approximately 1%-6% across the sling types. These estimates of complications are based on the complications reported in the randomized controlled trials and are limited by the detail regarding complications that each of the studies reported.

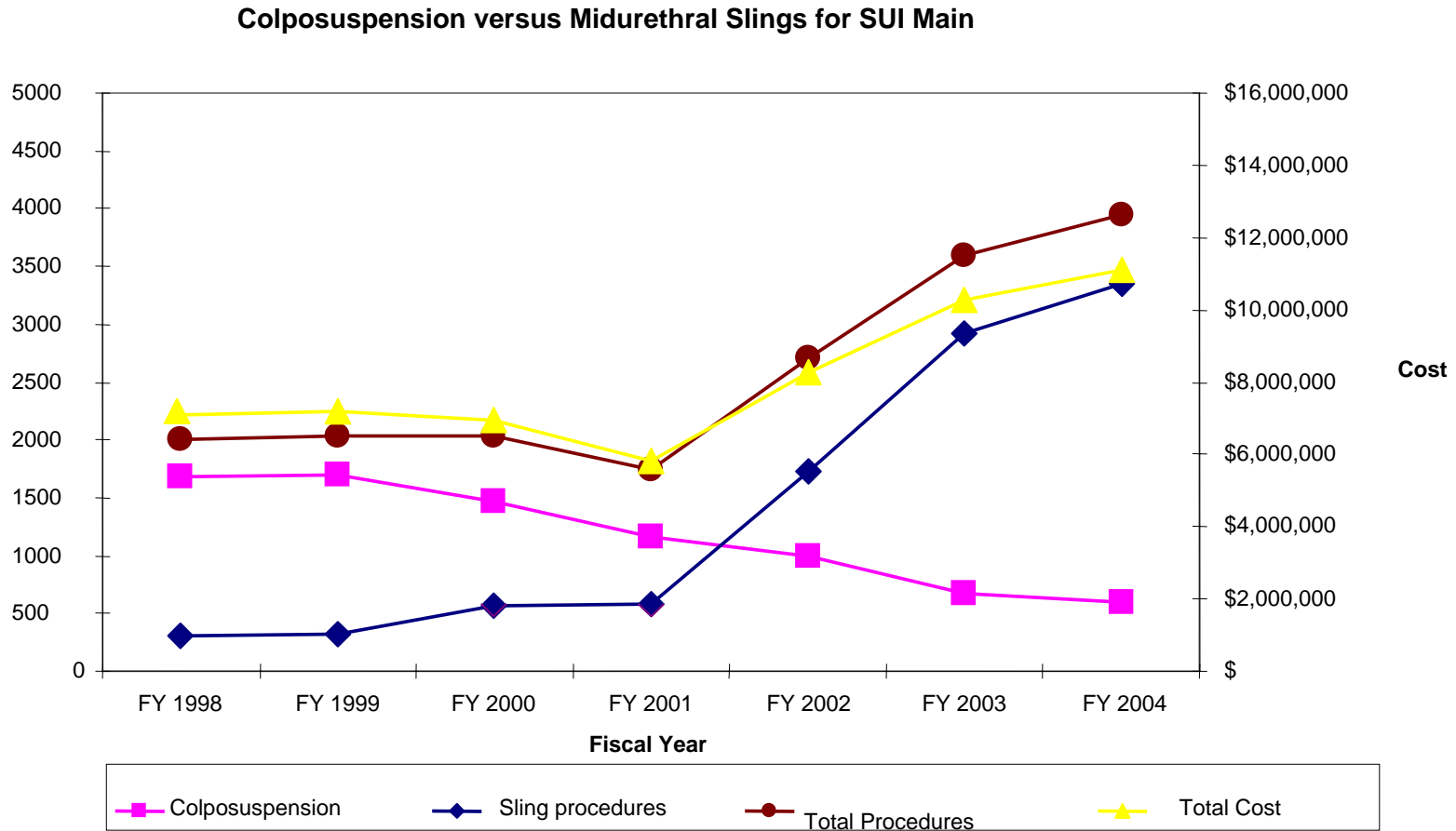
The cost of the midurethral sling procedure is estimated to be \$2,600 including professional fees, hospital costs and the cost of the device. Colposuspension is estimated to cost approximately \$3,700.

Diffusion of midurethral slings in Ontario

In Ontario the trends in the surgical interventions for the treatment of stress urinary incontinence between 1998/99 and 2004/05 indicate a shift in the use of colposuspension in favour of midurethral slings over time (Figure 1). There has been approximately a \$4 million increase in the cost of treating women stress urinary incontinence from 1998/99 to 2004/05, however, almost twice as many women were treated in 2004/05 than were treated in 1998/99.

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Figure 1. Comparison of colposuspension versus midurethral slings in Ontario from fiscal year 1998-2004



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OHTAC Recommendations:

- Expand the development of guidelines by Health Technology Utilization Guidelines of Ontario (Health TUGO) from the appropriate use of TVT ®, to the appropriate use of midurethral slings.
- Explore the introduction of a new OHIP code specific to mid-urethral slings and unique CCI codes so that midurethral slings can be tracked according to retropubic and transobturator routes through administrative databases—to assess, in particular, variation in complication rates