

Commentary on: Influence of body mass index on short-term subjective improvement and risk of reoperation after mid-urethral sling surgery

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Does weight play a role in the success of mid-urethral sling surgery?

We comment on a population-based study comparing the subjective-improvement and reoperation rates of patients after first-time midurethral sling surgery in different weight classes using the Danish Urogynecologic Database [1]. The primary outcome was subjective improvement of urinary incontinence (UI) symptoms at 3 months and up to 5 years after surgery using the International Consultation on Incontinence questionnaire (ICI-Q), which was given both pre- and post-operatively. Secondary outcomes include re-operation rates within the study period. Data were collected from the National Danish Urogynaecological Database, a national database that holds 90% of all Urogynecologic surgeries in Denmark.

Body mass index (BMI) was classified into three groups, owing to smaller numbers in the obese or underweight: <25 (normal weight), 25–35 (pre-obese, obese class I), and >35 (obese classes II and III). Twenty percent of the women did not have a BMI listed, and it was assumed that they would be evenly distributed, and thus were included in analysis.

Of the 6,414 women who underwent MUS surgery between 2011 and 2016, 61% had retropubic slings and 39% had transobturator slings. A total of 3,818 completed the pre- and post-operative questionnaires. Of these women, 48.1% ($n = 3,082$) reported that they no longer experienced incontinence 3 months post-surgery and 11.6% ($n = 741$) reported that they had experienced one or fewer episodes of incontinence per week. There was the same level of improvement in all three BMI groups.

With regard to re-operation rates, they found overall cumulative hazard proportion at 2 years follow-up of 1.9% (CI

95%: 1.6–2.3) and after 5 years 2.4% (CI 95%: 2.0–2.9). However, no specific values were given. The cumulative hazard proportion was confounded by age, smoking, and use of alcohol. Smoking and use of alcohol appeared to lower the risk of reoperation, though this may reflect provider preference versus need for surgery. Of patients who did have a repeat MUS, 69% had a normal BMI.

The strengths of this study are the large population. The limitations include the exclusion of individuals who never had a first surgery because of other comorbidities. Patients with higher BMIs or other comorbidities may not have been offered repeat surgeries, which is not captured in the database either. Although this study did break down individuals into smaller weight brackets, it is limited by the population database it used. Looking only at individuals below and above a BMI of 35 is not applicable in the USA and many other Western countries where morbid and super obesity are common.

This was a large study looking at a database population that found low reoperation rates after MUS overall and high levels of satisfaction post-operatively. Although the purpose was to investigate the effect of BMI on MUS, more data are necessary to understand why those with larger BMIs do not have, as expected, high reoperation rates.

Reference

1. Weltz V, Guldberg R, Larsen M, Magnussen B, Lose G. Influence of body mass index on short-term subjective improvement and risk of reoperation after mid-urethral sling surgery. Int Urogynecol J. 2018. <https://doi.org/10.1007/s00192-018-3570-1>

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