INCONTINENCE

Long-term durability of autologous fascial slings

Autologous slings compare favourably with tension-free vaginal tape (TVT) for the long-term treatment of stress urinary incontinence (SUI), according to new research published in *BJU International*.

A UK-based research team, led by Zainab Khan at Singleton Hospital, Swansea, compared three sling types in a multicentre randomized controlled trial; in 2010 they published the 12-month results, and now they report the 10-year outcomes. “Our study provides direct comparison of the autologous sling with the most commonly used synthetic mesh for stress incontinence surgery—the TVT,” Khan told *Nature Reviews Urology*. “Now, we provide longer term follow-up data, at a time when the routine use of synthetic meshes is being revisited.”

“Concerns regarding the safety of synthetic mesh have dominated the field...”

201 women with clinically and urodynamically proven SUI were randomized to receive either TVT ($n = 72$), autologous fascial sling (AFS; $n = 79$) or Pelvicol™ (a porcine collagen mesh; $n = 50$) between 2001 and 2006. Interim analysis revealed that Pelvicol™ was associated with considerably poorer results, so this arm of the trial was dropped, and the trial was modified (with ethical approval) to a two-arm interventional study. In 2013, attempts were made to contact all patients for evaluation of their long-term outcomes; 140 returned postal questionnaires and 22 were interviewed by telephone.

After median follow-up duration of 10 years, success rates—defined as women reporting being “completely dry” or “improved”—were 73%, 75.4% and 58% for TVT, AFS and Pelvicol™, respectively. The difference between groups was not statistically significant.

“In our view, the most significant finding of our study is that the autologous slings work as well as synthetic slings with long-term resilience,” explains Khan.

The investigators also looked at the deterioration of treatment outcomes between 12 months and 10 years. They found that success rates decreased from 93% to 73% for TVT ($P < 0.05$), from 90% to 75.4% for AFS ($P < 0.05$) and remained steady for Pelvicol™ (61% versus 58%, $P = 1.00$). In addition, dry rates remained stable for both AFS (48% versus 50.8%; $P = 0.157$) and Pelvicol™ (22% versus 15.7%; $P = 0.157$), but deteriorated for TVT (55% versus 31.7%; $P < 0.001$), implying a durable response for the AFS.

Concerns regarding the safety of synthetic mesh have dominated the field over the last few years, with the FDA issuing an updated warning in 2011 about the risk of complications (including erosion, contraction and subsequent pain) after transvaginal mesh surgery. “Last week the Scottish Health minister suspended the use of synthetic mesh for stress incontinence surgery due to these complications,” adds Khan.

In this context, Khan and colleagues hope their findings will be useful to both clinicians and patients, demonstrating that the AFS is a viable option with seemingly durable dry rates. They do, however, warn that patients must be properly counselled regarding the risk of morbidity (need for self-catheterization, discomfort and abdominal scarring) associated with the AFS. “The procedure is appropriate in many health-care settings and can with confidence be offered as a choice in the management of SUI,” concludes Khan.

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Original article Khan, Z. A. et al. Long term follow-up of a multicentre randomised controlled trial comparing TVT, Pelvicol™ and autologous fascial slings for the treatment of stress urinary incontinence in women. *BJU Int.* doi:10.1111/bju.12851