

Minimally Invasive Treatment for Female Stress Urinary Incontinence (SUI): A Review Including TVT, TOT, and Mini-Sling

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ABSTRACT

Treatment for female stress urinary incontinence (SUI) has progressed rapidly over the past ten years in the search for less invasive methods to treat this disease. There have been over 100 procedures described in the literature to date to treat female SUI; however, only two procedures have stood the test of time and have adequate cure rates: the retropubic colposuspension (Burch, MMK) and the sling. The laparoscopic approach to minimize the Burch procedure was described in the 1990s, but the evolution of the retropubic tension-free vaginal tape sling (TVT) in the late 1990s revolutionized the treatment of female SUI. More recently, the transobturator technique (TOT) and the single-incision mini-sling have been reported in attempts to further reduce the risks of sling placement. The current chapter reviews the history of treatment of female SUI and the development of these newer, less-invasive techniques. The procedures themselves are described, the risks of mesh complications reviewed, and the literature reviewed for current data on the different approaches and procedures.