Which AUS implant approach is better: Perineal or penoscrotal?

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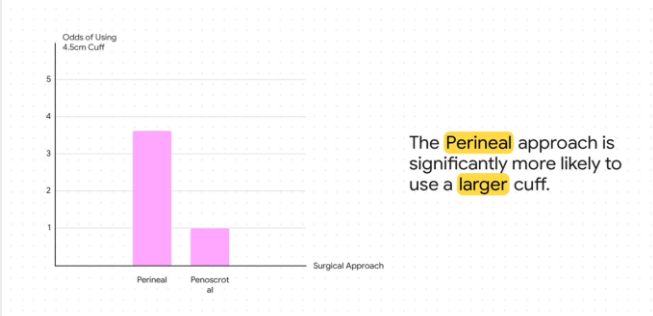
• Introduction

◦ Stress urinary incontinence (SUI) significantly impacts men's quality of life.

◦ The Artificial Urinary Sphincter (AUS) is the standard treatment for moderate to severe SUI.

◦ AUS can be implanted via two primary surgical techniques: perineal (traditional) or penoscrotal (single incision).

◦ Debate exists regarding the advantages and limitations of each approach. This systematic review and meta-analysis quantitatively compared their perioperative and postoperative outcomes.



• Methods

◦ A comprehensive literature search was performed in PubMed, Scopus, Web of Science, and the Cochrane Library.

◦ Six observational studies, including a total of 595 patients, met the inclusion criteria.

◦ Studies compared cuff size, operative time, dry pad rates, social continence, complications (erosion, infection, atrophy, malfunction), and AUS removal or revision rates.

◦ The analysis followed PRISMA guidelines and utilized Review Manager software.

• Results

◦ **Cuff Size**: The perineal approach was associated with significantly larger cuff sizes (OR = 3.63 [1.94–6.8], P < 0.0001).

◦ **Operative Time**: The penoscrotal approach correlated with significantly shorter operative times (MD = 32.98 [19.5–46.46], P < 0.00001).

◦ **Continence & Complications:** No statistically significant differences were found between the two techniques regarding dry rates, social continence, urethral erosion, infection, urethral atrophy, or device malfunction.

Outcome	Perineal Advantage	Penoscrotal Advantage	No Difference
Speed		✅	
Cuff Size	✅		
Dryness			✅
Complications			✅
Device Removal		✅	

◦ **AUS Removal:** The perineal approach had a statistically significant higher odds ratio for AUS removal (OR = 2.98 [1.53–5.8], P = 0.001). This may be due to longer follow-up in perineal approach studies.

◦ **Tandem Cuff**: A statistically significant higher ratio of using an additional tandem cuff was found in patients undergoing the penoscrotal approach (OR = 0.38 [0.18–0.81], P = 0.01).