



# Outcome of Double Blinded Randomized Controlled Study Using Dartos versus Small Intestinal Submucosal Graft with Tubularized Incised Plate Urethroplasty for Distal Hypospadias Repair

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## Abstract:

**INTRODUCTION AND OBJECTIVES:** Tubularized incised plate urethroplasty (TIPU) has been the standard for distal hypospadias repair. Herein, we compare the use of dartos pedicle versus small intestinal submucosal (SIS) graft as a secondary layer with TIPU for distal hypospadias repair. **METHODS:** Forty-one patients with distal hypospadias were enrolled in a double blinded randomized controlled study comparing the use of dartos pedicle versus 4-layer SIS graft as a secondary layer during TIPU. The two groups were analyzed regarding patient age, urethral plate width, glans groove, stent size and duration, operative time and complications. Patients were followed up to 6 (mean 4.3 months). **RESULTS:** Group (A) included 20 patients with distal hypospadias (12 distal penile and 8 coronal) and managed with dartos pedicle during TIP repair. Patients' age ranged from 6-96 (mean 51 months). Group (B) included 21 patients (12 distal penile and 9 coronal) and managed with SIS graft as a secondary layer during TIP repair. Patients' age ranged from 7-144 (mean 64.4 months). Mean urethral plate width was 7 & 5.7 mm respectively. The glans groove was shallow in 76.1% and 71.4% respectively. Operative time ranged from 60-90 min (mean 70 & 69.3 min for both group respectively). An 8Fr Nelaton catheter was left indwelling for 7 & 7.6 days respectively. Complications rate was 10% (urethrocutaneous fistula in 2 patients) and 42.9% (urethrocutaneous fistula in 6 and disruption in 3 patients) respectively. **CONCLUSIONS:** The use of dartos pedicle with TIP repair remains the gold standard for distal hypospadias repair with the least complications rate. SIS graft may have place in case of circumcised hypospadiac patients or redo cases. A larger study group with longer follow up is required to assess long-term outcome for distal hypospadias repair utilizing SIS graft. Source of Funding: none

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