Double face onlay island preputial skin flap with augmented glanuloplasty for hypospadias repair


Objectives: The aim from this study is the evaluation of the use of double face preputial flap with augmented glanuloplasty in repair of different degree of anterior hypospadias.

Material and methods: Prospective study on 182 male patients with different degree of anterior hypospadias, were treated with double face onlay island preputial flap. Their age ranged from 6ms-10ys (mean 3.03ys). Cases that were selected for this study, those with anterior hypospadias (122 with DPH, 38 with mid penile hypospadias and 22 with proximal penile hypospadias, all with small glans, narrow urethral plate. All patients were treated with double onlay island preputial flap, the inner mucosa as onlay to augment the urethra and the outer face to cover the neourethra and augment the glanular wings.

Suitable urethral catheter was inserted for 5-7 days. Follow up for 24 months was by clinical examination. VCU and AUG are indicated for cases with history suspecting stricture.

Results: Success rate was in 176 (96.6%) patients regarding the cosmosis and the patency of urethra, 3 (1.6%) patients had superficial epidermal loss which healed spontaneously after 3 weeks without any effect on urethral patency and cosmosis. 6 (3.29%) patients had developed actual complications affecting the success rate, 1 (0.5%) patient with glanular disruption, 2 (1.09%) patients with urethrocutaneous fistula, 1 (0.5%) case with mid penile urethral diverticulum and 2 (1.09%) patients with lateral penile torsion.

Conclusion: Double face onlay preputial flap with augmented glanuloplasty is a suitable technique for repair of anterior hypospadias as it gives satisfactory success rate as regard urethral patency and cosmosis.

Keywords: Hypospadias, double face onlay island flap, augmented glanuloplasty, flap hypospadias repair.