Mohammed H Aldabbagh, Curr Pediatr Res 2019, Volume 23

THE ROLE OF TUNICA VAGINALIS FLAP AS A SUPPORTIVE ADDITIONAL LAYER IN THE REPAIR OF PROXIMAL HYPOSPADIAS

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Background: Severe hypospadias like scrotal and perennial types are challenging problems for the surgeons, patients and their families. More than 300 methods were used to correct different type of hypospadias most of them carry high incidence of complications specially fistulas. These complications are much more common in the proximal types like our cases. One way of reducing the incidence of fistulas is to utilise the tunica vaginalis as an additional layer before skin closure. Using tunica flap is rather a new technique. Most related literatures about this subject used this technique after surgery to manage cases with post-operative fistulas. In the contrary author used this technique during the formal surgery to cover the new urethra to prevent fistula formation not after surgery.

Aims of the study: To evaluate the role of tunica vaginalis flap in preventing fistula formation in severe hypospadias (Proximal types) repair and problems related to its use.

Patients & Methods: Between 2016 and 2017 five children with proximal hypospadias were operated on. Only severe cases were treated with this method other simpler and more common cases were treated by different surgeries like Snodgrass technique. The age range was 2 to 16 years. All of them had two staged repair the first stage was correcting the chordae by incising the urethral plate then covering the bare shaft with dorsal flaps. The tunica flap was used in the second stage which was done 6 to 12 months later. The neo urethra was created by tubularising the local skin flaps and then a second layer added from the surrounding tissues. The edge of the wound elevated toward the scrotum subcutaneous tunnel created. Tunica vaginalis vascularised flap then created from one side left or right tunica. The flap then passed under the sin toward the ventral penile site and used to cover the neo urethra. The cremasteric muscles were not excluded from the flap. The skin closed over the flaps. Folly's catheter was used for 10 to 14 days after surgery. And the patients were followed for a variable time three months to two years period for the development of complications like fistula formation or stricture. Cosmetic considerations were also noted.

Results: All the five patients had proximal hypospadias. After surgery all patients had neither fistula formation nor stricture, with good cosmetic outcome. No post-operative penile torsion was noted. One patient developed local infection treated conservatively one patient had partial glanular dehiscence at the distal end which had no clinical significance.

Conclusions: Using tunica vaginalis vascularised flap to cover the new urethra in severe proximal hypospadias during the second stage seems to be a successful way in preventing fistula formation without increasing the patient's morbidity.

BIOGRAPHY

Mohammed H Aldabbagh has completed his pediatric surgery board study at the age of 30 years from the Iraqi Board of Medical Specialization. He is Consultant Pediatric Surgeon, Assistant Professor at the Surgical Department. He is the Head of the Medical Education Department College of Medicine Duhok University. He has published more than six papers in reputed journals.

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