



**THE OUTCOME OF DOUBLE DARTOS FLAPS VERSUS SINGLE LAYER
FLAP IN SNODGRASS URETHROPLASTY FOR DISTAL HYPOSPADIAS
REPAIR IN BASRA TRAINING CENTER OF UROLOGY**

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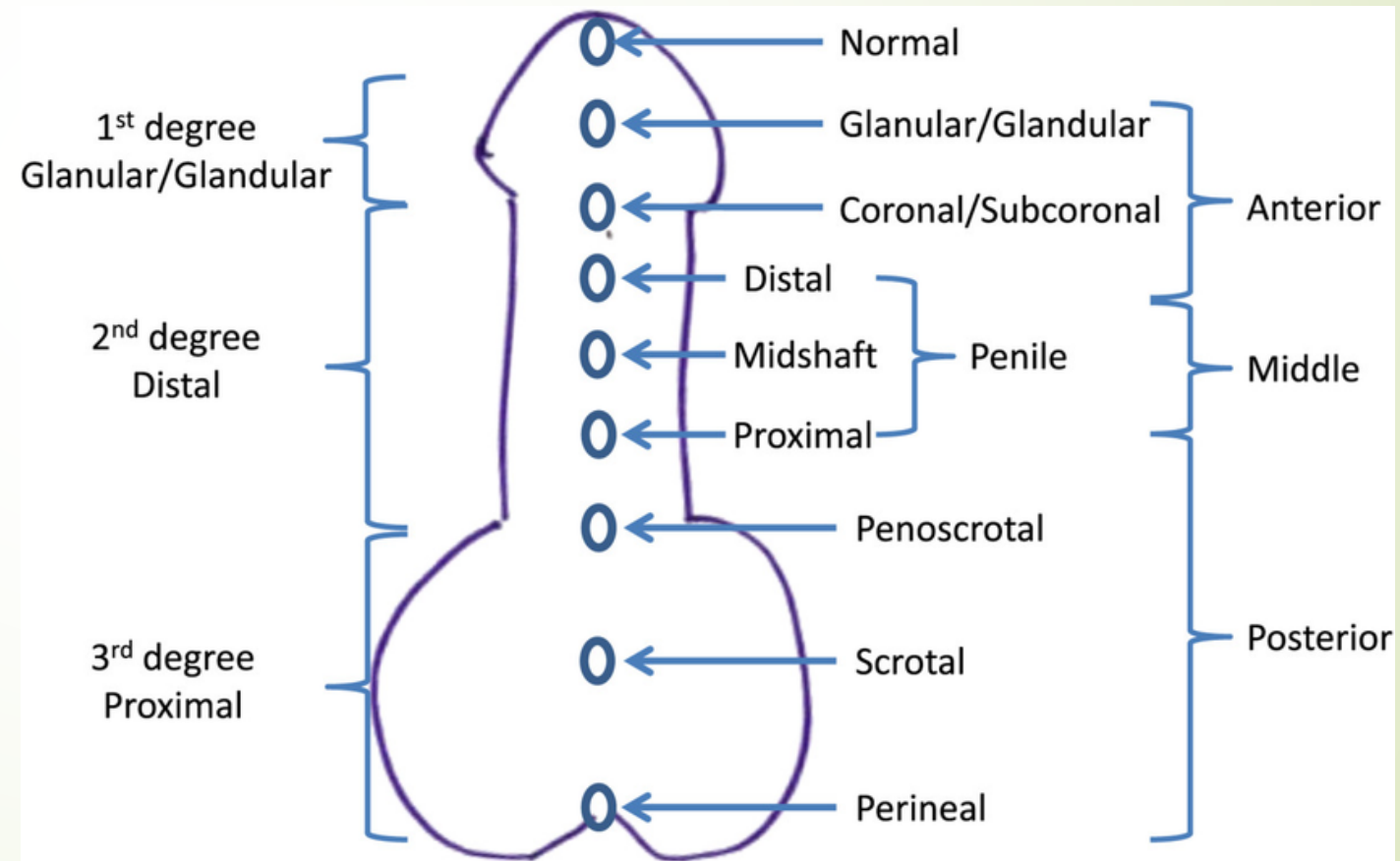
Introduction



- ❖ **Hypospadias is one of the congenital abnormalities of the genitourinary tract.**
- ❖ **The hypospadias malformation :**
 - ✓ **Ventral opening of the urethral meatus.**
 - ✓ **Chordee.**
 - ✓ **Distribution of the foreskin.**

Classification

- (1) Distal hypospadias 70 - 80%.
- (2) Mid - shaft hypospadias 15 - 20%.
- (3) Proximal hypospadias 5% [6].





Surgical options

The general principles in surgical hypospadias correction are:

(1) orthoplasty.

(2) urethroplasty.

(3) glanuloplasty and meatoplasty.

(4) skin coverage of the penile shaft.



Mathieu

MAGPI

High success
Less
complication

**TIP urethroplasty
Snodgrass
1994**

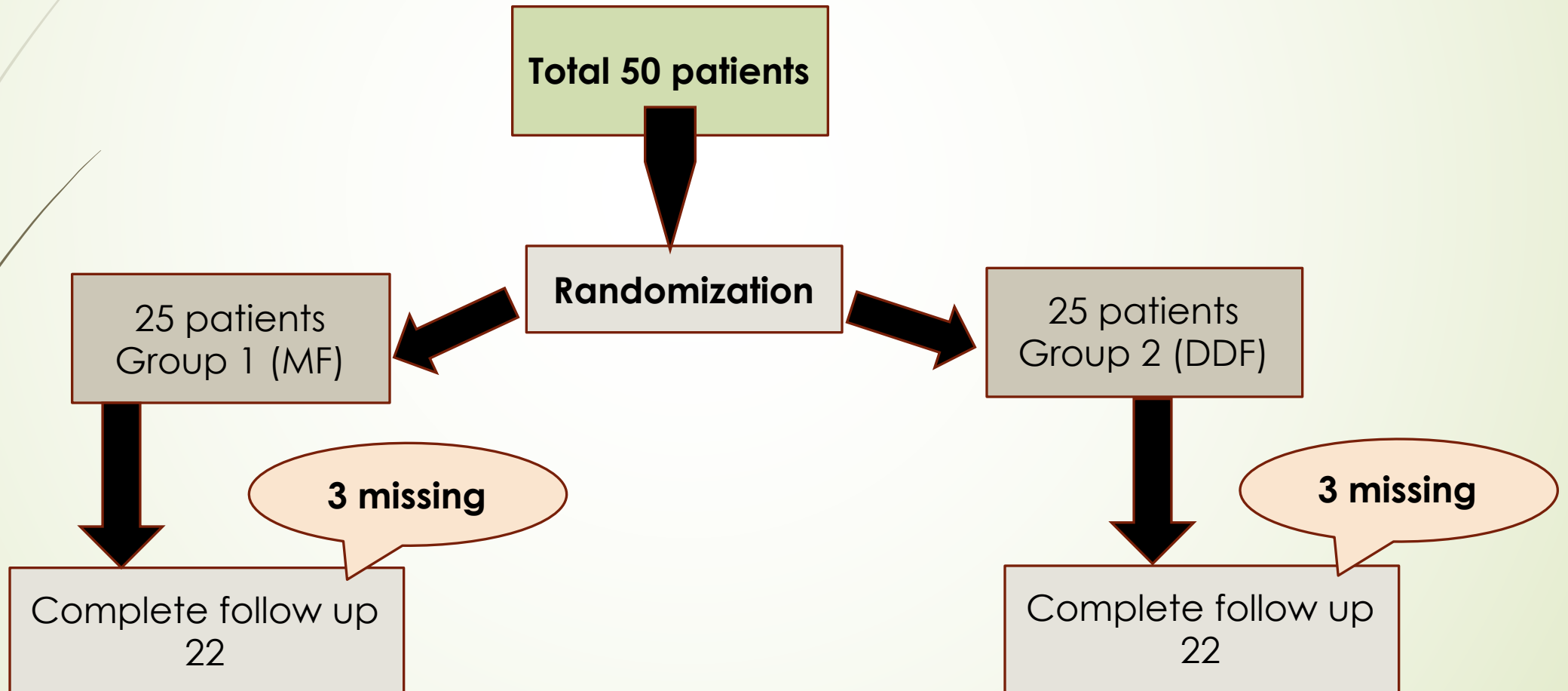


Aim of study

- **To assess the outcome of double dartos flaps (DDF) versus single layer flap in TIP urethroplasty (Snodgrass procedure) for primary distal hypospadias repair in Basra Teaching Center with regard to success rate, and to investigate the importance of double flaps in preventing possible complications in particular, urethral fistula.**

Patients & Methods

A cross sectional prospective study was done in Basra Teaching Hospital (urological department) between January 2018 to March 2020.





Inclusion criteria

Patients with coronal and sub coronal distal primary penile hypospadias who are candidates for Snodgrass TIP urethroplasty.

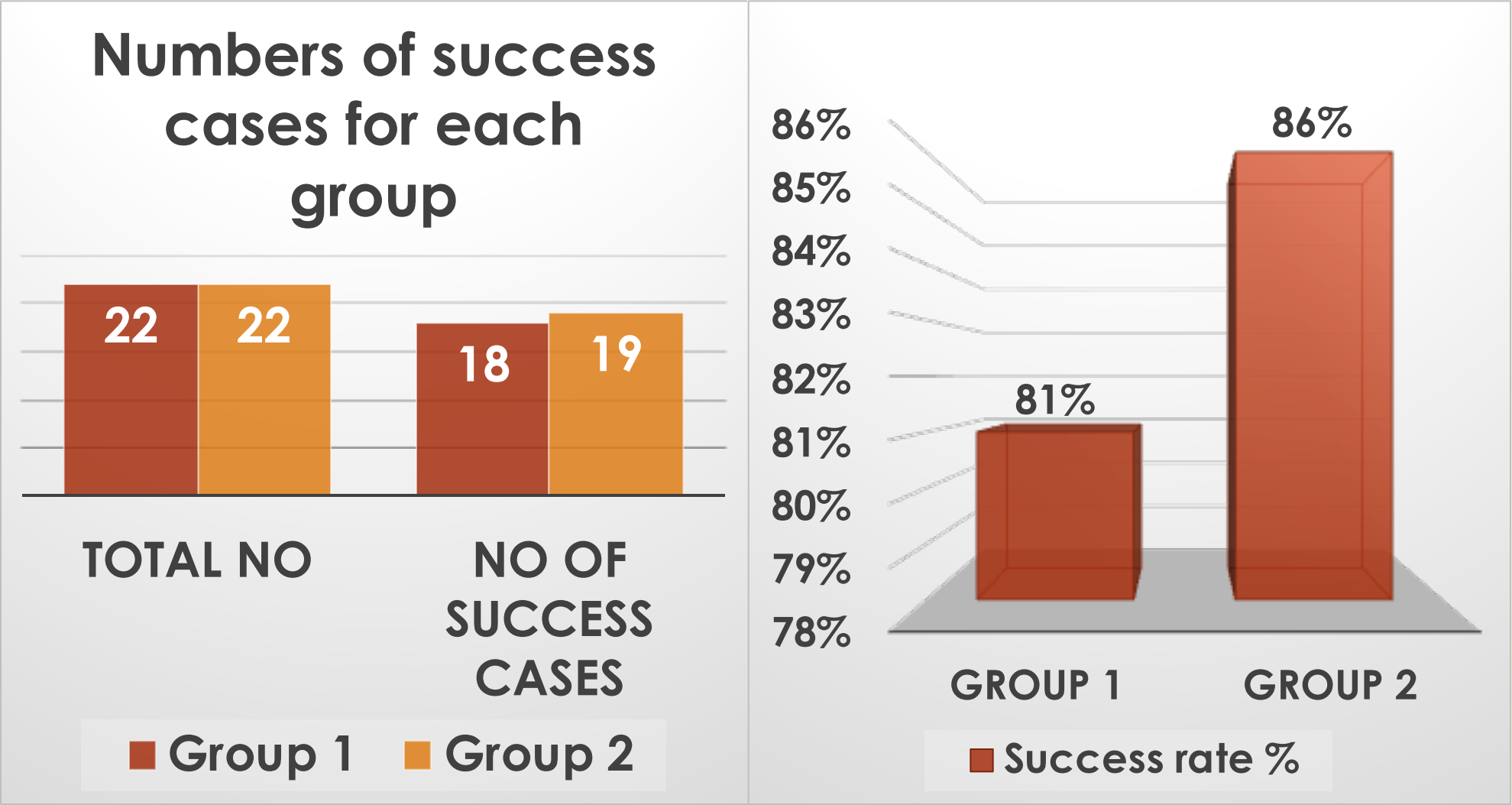
Exclusion criteria

Include proximal hypospadias, history of failed urethroplasty, history of circumcision, severe penile curvature which might need urethral plate excision for correction.

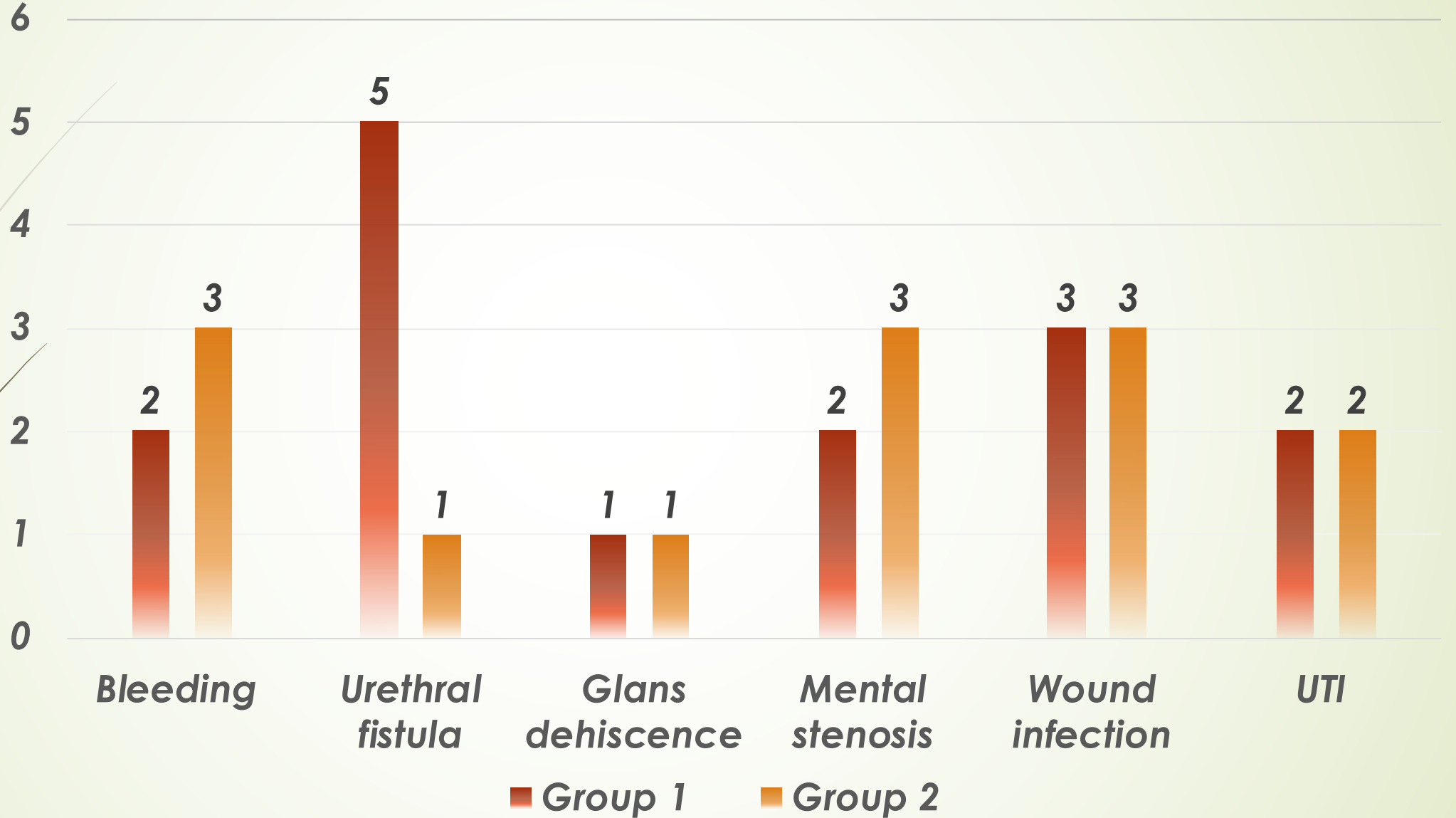
Results

			<u>Group1</u>	<u>Group2</u>
Age		Mean	<u>4.559</u>	<u>4.868</u>
		SD*	2.0234	2.2531
		SD. Error Mean	0.4314	0.4804
Age groups	<u>2-5 yrs</u>	Count	14	12
		% within Groups	63.60%	54.50%
	<u>6-8 yrs</u>	Count	7	8
		% within Groups	31.80%	36.40%
	<u>9-10 yrs</u>	Count	1	2
		% within Groups	4.50%	9.10%
Type	<u>Coronal</u>	Count	<u>8</u>	<u>10</u>
		% within Groups	36.40%	45.50%
	<u>sub-coronal</u>	Count	<u>14</u>	<u>12</u>
		% within Groups	63.60%	54.50%
Operative time in minutes		Mean	<u>88.8182</u>	<u>91.8636</u>
		SD	6.46335	6.46084
		SD. Error Mean	1.37799	1.37746

The success rate was dependent on cosmetical, functional acceptance and complications that have been treated by conservative measures.



NUMBERS OF COMPLICATIONS FOR EACH GROUP





The differences between the two groups in the bleeding, meatal stenosis, glans dehiscence, wound infection, UTI were statistically non-significant.

There was significant difference between the two groups in the occurrence of UF (P = 0.001)



Discussion

The exact causes of fistula remain unknown. Shape of urethral plate, technical errors, local infection, poor tissue healing and distal obstruction may play a role in fistula formation.

Retik et al, in 1994 was first described the use of dartos flap in TIP urethroplasty.

Kamal et al, 2005 , the first one has reported a Double dartos flaps(DDF) to protect the neourethra.

Kamal et al, 42 patients

Balkan and Yildiz et al, 45 patients

Savannelli et al, 40 patients

Erol et al,

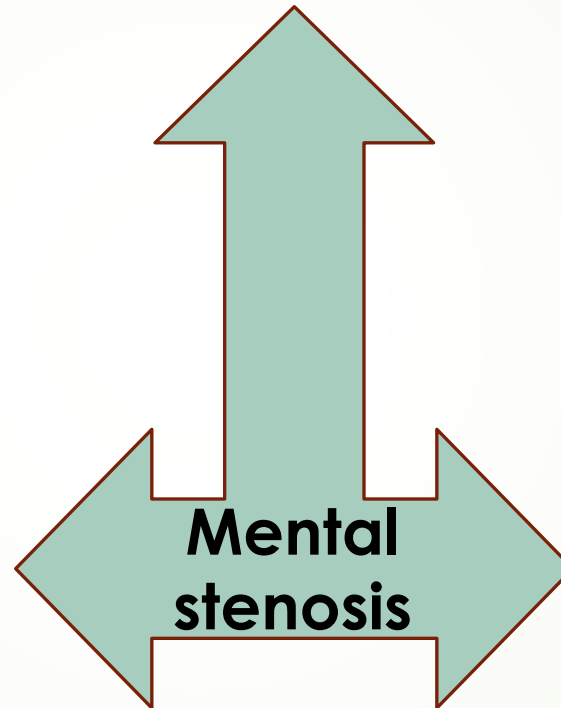
**Djordevic et al, 126 cases
(button hole fashion)**

**0% Uerthral
fistula
DDF**

**1 case
Infection**

In current study, Meatal stenosis was diagnosed in 2 patients (9.1%) in group I and 3 patients (13.6%) in group II, all 5 cases in both groups were treated conservatively by frequent dilatation.

Lorenzo and Snodgrass, suggested that regular meatal dilatation is not mandatory after TIP urethral platy because this complication often develops as a result from a technical error such as not deeply incise the plate and tubularized the plate too far distally.



Elbakry recommended that continuous urethral dilatation is very important for preventing meatal stenosis and UF by relieving adhesions between both sides of the incised plate.

causes of bleeding are inadequate hemostasis, trauma to the corpus cavernosum, bleeding from the resected corpus spongiosum .

we use tourniquet which is applied for 20 minutes with 5 minutes' interval and bipolar cautery.

Bleeding

All cases was treated conservatively with tight dressing except one case in group 2 was treated by surgical exploration.

avoided by applying a tourniquet at the base of penis, using bipolar electrocautery , Adrenaline solution (1:100,000) is also helpful for hemostasis



Conclusion

- Tubularized incised plate urethroplasty remains most popular surgical intervention for treatment of distal hypospadias repair with good functional and cosmetic results, most of the complications were minor and treated conservatively.
- Neourethral covering with symmetrical well vascularized double dorsal dartos flaps represents a very good choice of UF prevention after TIP urethroplasty for distal hypospadias.
- Double darts flaps is easy to be harvested, safe procedure.
- Although the number of complicated patients are higher in group II than group I but there were statistically insignificant.
- We need more detailed studies with larger patients' sample to assess of DDF efficacy.



➤ **Thanks for your attention**

