

# End to Side Corporal Anastomosis for reconstruction of penile duplication

Mariam Malallah, Peter Metcalfe

University of Alberta

#### Introduction:

- Diphallus is a rare congenital anomaly which accounts for 1 per 5 to 6 million live births<sup>1,2</sup>.
- Until now, about 100 cases have been reported in literatures<sup>3</sup>.
- The current classification classifies diphallia into true diphallia and bifid phallus.
- Each of these is further subdivided into partial or complete duplication.
- We report a different surgical approach for penile duplication reconstruction.



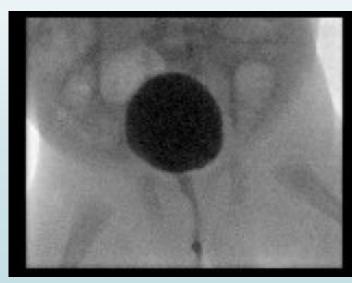
## Case Report:

- Our case was a baby boy diagnosed at birth with a duplicated penis.
- VCUG confirmed the absence of a complete urethral duplication.
- Only the left urethra could be catheterized









- At the age of 7 months he underwent EUA and penile exploration demonstrating:
  - two separate corpora cavernosa were each had developed its own glans but the right moiety lacked its corpora spongiosa and urethra.
  - The left sided glans appeared very normal with a single orthotopic meatus





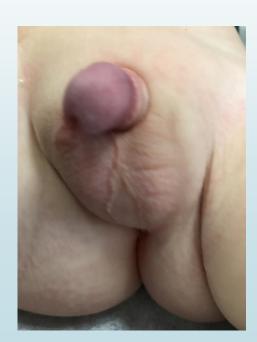
- Due to the anatomic presentation of a "corporal duplication"
  - The left side was completely preserved with its normal urethra and glans
  - Partial penile amputation of his right sided accessory glans
  - Because both corpora appeared normal, except for the absence of integration, it was felt that grafting it to the left moiety would give the best structural and functional outcomes.
  - Incision was made on the lateral aspect of the left corpora and the right corpora was filleted open.
  - End-to side anastomosis was performed.
  - This ensured a proper anchoring to the both pubic tubercles to maximize fixation for erection and not sacrificing corporal sensation





- A technically successful reconstruction was achieved.
- Post-Operative follow up showed a quite normal looking penis with a straight stream voiding.
- Our surgical approach is different in contrast to previously reported management techniques involving surgical excision of the abnormal penis with or without urethral reconstruction.<sup>3,4</sup>



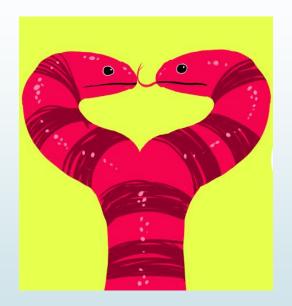




#### Conclusion:

Due to the rarity of this malformation, surgical reconstruction should be individualized as it poses a great challenge taking into account the medical, surgical and ethical considerations without imperiling penile function or cosmesis.

### Thank You ...



#### References:

- 1. Adair EL, Lewis EL. Ectopic scrotum and diphallia. J Urol 1960; 84:115e7.
- 2. Kaufman Ariel, Guia Ronald, Davila Hugo, Kaufman Alfredo. Diphallus with third urethra. Urology 1990;35:257-60.
- 3. Gyftopoulos K, Wolffenbuttel KP, Nijman RJ. Clinical and embryologic aspects of penile duplication and associated anomalies. Urology 2002;60:675.
- 4. Rock SD, Gearhart JP. Complete lower urinary tract duplication with true diphallia presenting as a rare covered exstrophy variant. J Urol 1907;157:1997.