Assessment of the Function of Lower Urinary Tract Following Feminizing Genitoplasty in Females with Congenital Adrenal Hyperplasia

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Introduction

• In virilized females with Congenital Adrenal Hyperplasia (CAH), the principal aims of surgery are to reduce the size of clitoris, create a vaginal orifice that will allow menstrual flow and intercourse, and to correct the urogenital sinus to prevent incontinence.

• The complications of Feminizing Genitoplasty include urinary complications as regards the voiding function and continence.

• Symptoms of voiding dysfunction include dysuria, urgency, and frequency. The dysfunctional voiding scoring system may help to identify patients with postoperative urinary complications.

Objectives

• To assess the function of lower urinary tract following Feminizing Genitoplasty in females with CAH.

Methods

• We included **40** female children with CAH aged more than **3** years attending the Endocrinology clinic in Alexandria University Children's Hospital, Egypt.

• Thorough history taking and clinical examination were done with emphasis on age at diagnosis and duration of disease, timing and stages of surgery, and presence of urinary symptoms.

• Assessment of lower urinary tract function using dysfunctional voiding score system was done for them at least 6 months after the surgery. Urodynamic evaluation was performed for females with score more than **6**.

Results

• The mean age of the cases was 8.2 years with mean duration of CAH of 7.9 years.

• 67.5% were controlled on medical treatment and 80% had done surgical correction in one stage operation.

• By applying the dysfunctional voiding score system, **72.5%** of cases had score **≤ 6** and there were **11** cases (**27.5 %)** had score > **6**.

• There were **7** cases (out of 11 with high score) had Bell shaped curve on Urodynamic study, **3** cases with Interrupted curve and only **one** case with Plateau curve. There were **9** patients improved after toilet training.

Total score and severity of cases of CAH

Total score	Min. –Max.	Mean ±SD.
	1.0 – 15.0	4.57 ± 3.73
Score severity	**No.**	**%**
Less than or equal 6	29	72.5
More than 6	11	27.5

Cases with High Score (n=11)

	No.	%
Age (years) Mean ± SD.	9.0 ± 2.4	
Age at diagnosis (Months) Mean ± SD.	4.9 ± 14.5	
Duration of illness (years) Mean ± SD.	8.5 ± 2.2	
Controlled		
Yes	7	63.6
No	4	36.4

Comparison of different variables between cases of CAH and controls

	No.	%
Toilet training		
Refused	1	9.1
Improved	9	81.8
Not improved	1	9.1
Shape of curve		
Bell shape	7	63.6
Plateau	1	9.1
Interrupted	3	27.3
Assessment of external sphincter		
Normal	10	90.9
Increase activity	1	9.1
Cosmetic Genital appearance		
Good	4	36.4
Satisfactory	4	36.4
Poor	3	27.3

Conclusions

• Lower urinary tract symptoms are common in females children with CAH after Feminizing Genitoplasty so early assessment is needed to prevent urinary complications.

References

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