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8. البحث الثامن: بحث جماعي منشور

Anatomical measurements of the
urogenital sinus in virilized female
children due to congenital adrenal
hyperplasia

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الملخص الانجليزي:

Background

Virilized females due to congenital adrenal hyperplasia represent the most common form of female disorders of sexual development. The anomaly therein is an external virilization to resemble male genitalia and a persistent urogenital sinus.

Objectives

To study the anatomical details of the virilized female cases operated upon between 2011 and 2015.

This anatomical description is presented to support the current surgical strategy of partial urogenital mobilization to correct this anomaly.

Methods

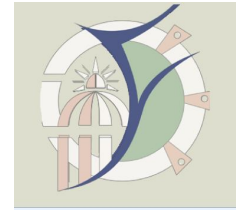
Thirty cases (presenting to a single tertiary center) were prospectively studied by genitography, cystourethroscopy, and operated upon via a single-stage feminizing genitoplasty. A single surgical team operated upon all cases. External virilization was assessed by the Prader classification. The internal anatomy was studied by measuring the length of the urethra proximal to the confluence, and the vertical depth of the vaginal-urethral confluence from the perineum. The correlation coefficients between the external virilization and the internal anatomical measurements were derived.

Results

The median age at surgery was 19 months (range 6 to 42 months). External virilization



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did not obviously correlate with the length of the proximal (prejunctional) urethra ($r = -0.03$, $P = 0.5$), or strongly with the depth of the vaginal-urethral confluence ($r = 0.2$, $P = 0.2$). The mean length of the proximal urethra was 22 mm (range 10-32 mm), and the mean vertical depth of the vaginal-urethral confluence from the perineum was 16 mm (range 8 - 31 mm).

Discussion

Due to limitations of the radiological and endoscopic evaluation, the accurate anatomical assessment of this condition may be challenging. In order to assess or compare the anatomy of these cases, there are two important points to address: (1) the length of the urethra proximal to the urogenital sinus, as this will impact the urinary outcome; and (2) the depth (level) of vaginal entry into the urogenital sinus, as this will affect the mobilization required to exteriorize the vagina.

Conclusion

The degree of external virilization does not totally correlate with the internal anatomy. The depth of the vaginal-urethral confluence from the perineum is an indicator of the required mobilization for the current perineal approach. In 90% of cases in this age group (1 - 3 years old), this depth is <20 mm. This supports the current understanding that partial urogenital mobilization could be suitable for most cases Figure (Summary).