Management dilemmas in a genetically female child with congenital adrenal hyperplasia raised as a male P2-P77

Sumudu Seneviratne^{1,3} Malik Samarasinghe^{2,3}, KSH de Silva^{1,3}

¹Department of Paediatrics, Faculty of Medicine, University of Colombo, Colombo, Sri Lanka; ²Department of Surgery, Faculty of Medicine, University of Colombo, Colombo, Sri Lanka; ³Lady Ridgeway Hospital for Children, Colombo, Sri Lanka

BACKGROUND

Female infants with congenital adrenal hyperplasia (CAH) are conventionally reared as females, even if severely virilised at birth(1).

OBJECTIVES

- To report on a 9-year-old genetically female child with salt wasting CAH reared as a male from birth, presenting with
- Recently, male gender of rearing for such children, is receiving consideration (2).
- There is however, a lack of evidence-based guidelines to direct management in such instances.

CASE HISTORY

- Initial presentation in new born period with ambiguous genitalia (Prader stage 1V)
- Karyotype 46 XX, ultrasound scan showing both ovaries, infantile uterus and bilateral adrenal hyperplasia
- Elevated serum 17-OHP, hyponatremia and hyperkalemia
- Diagnosed as salt wasting CAH due to 21 hydroxylase deficiency
- Long term oral hydrocortisone and fludrocortisone therapy commenced

- central precocious female puberty
- To describe current and future management issues and management strategies planned

MANAGEMENT

- Psychological assessment- well adjusted male gender role
- Long acting GnRH agonists commenced to suppress puberty
- Hydrocortisone and fludrocortisone doses optimised
- Long term management discussed at specially convened multidisciplinary team meeting involving paediatric endocrinology, paediatric surgery and child psychology/ psychiatry teams and the family
- Parental decision to rear baby as a boy, despite extensive counselling
- Hypospadias repair performed at 2 years of age
- Treatment compliance and follow up suboptimal
- At 8 ½ years of age, developed cyclical bleeding per urethra
- Bone age significantly advanced (14 years)
- Ultrasound scan haematocolpus
- Elevated serum FSH and LH



Figure 1-Image showing degree of genital virilisation in the child at 9 years of age

LONG TERM PLAN

- Delay any irreversible surgical interventions until; –Patient at least 18 years of age
 - -Capable of making an independent informed decision regarding future gender identity
 - Legally of age to give informed consent for oophorectomy (if male gender decided upon)
- Suppress female puberty with GnRH analogs till such time
- Discuss further on possibility of initiating male hormone **replacement therapy**, and its timing, with the family, when peers enter puberty
- Provide long term counselling and psychological support
- Arrange appropriate transition of care to adult services in the future, utilising a multidisciplinary care approach

CONCLUSIONS

Management of virilised 46 XX children with CAH, with a male gender of rearing is **complex and challenging**

Establishment of **multidisciplinary care teams** and consensus guidelines on management would be beneficial to clinicians managing such complex patients and the families

REFERENCES

1. Hughes IA, Houk C, Ahmed SF, Lee PA. Consensus statement on management of intersex disorders. Journal of pediatric urology. 2006;2(3):148-62. 2. Houk CP, Lee PA. Approach to assigning gender in 46,XX congenital adrenal hyperplasia with male external genitalia: replacing dogmatism with pragmatism. J Clin *Endocrinol Metab.* 2010;95(10):4501-8.

Disclosure statement- The authors have no potential conflict of interest to declare

