**INTRODUCTION**

Testicular adrenal rest tumour (TART) is a complication in males with congenital adrenal hyperplasia (CAH). TART could lead to infertility by causing obstructive azospermia. However, the prevalence, risk factors and treatment in children are not clear.

**AIM**

1. To identify the incidence of TART and risk factors in patients with classical CAH in our centre.
2. To study the clinical characteristics, hormonal profile, treatment interventions and outcome of patients with TART.

**METHOD**

Testicular ultrasound were performed in 16 patients with poorly controlled CAH (mean age 9.87 ± 3.11, range 4.67-18yrs).

Clinical characteristics, hormonal profiles and treatment were compared between patients with and without TART.

**RESULTS**

TART lesions were detected by ultrasound in 6 patients (37.5%). The lesions were bilateral in all patients, mean diameter of 0.3cm, hypoechoic in nature and scarce in vascularity. Interestingly, testicular micro lithiasis was found coincidentally in 1 patient. Increased frequency of testicular micro lithiasis in CAH is postulated due to multifactorial cellular degeneration, which includes TART.

There was no significant difference in height SDS and BMI SDS in patients with and without TART. TARTs were detected in 60% of patients who had attained final height. Only 1 patient had palpable nodules. Clinical evaluation had as sensitivity of 16.7% when compared to ultrasonographic evaluation in our study, as majority of the lesions were small.

5 patients developed peripheral precocious puberty and 2 patients evolved into central precocious puberty. Although poor hormonal control has a pivotal role in the pathogenesis of TART, one patient developed TART despite good control. This has also been demonstrated in other studies indicating the likelihood that other factors are also involved in the pathogenesis of TART.

All had intensified hydrocortisone regimen after detection of TART (mean dose 17mg/m²/day) for 2-4 weeks, however only two (33%) had resolution on repeated ultrasound. Our data showed a lower rate of disappearance or resolution of TART on follow up ultrasound compared to adult studies despite a 25-30% increment of hydrocortisone dosage. This could be contributed by the poor compliance reported most of our patients.

**CONCLUSIONS**

Ultrasound surveillance for TART in males should be performed in childhood, especially in those with poor disease control and at peri-pubertal age.

Larger studies should be conducted to explore the risk factors and therapeutic modalities in TART.

**REFERENCES**


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