Abstracts

G105(P)

**INTERPRETATION OF CORTISOL LEVELS IN INFANCY IS DEPENDENT ON CLINICAL HISTORY**
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Aims To assess cortisol levels in infancy and to determine whether low cortisol levels are indicative of pathology.
Methods A retrospective study of cortisol requests in patients aged up to 64 days for 20 months until August 2012 was undertaken. Data was collected on indications for testing, subsequent results and final outcome. Cortisol was measured using the Abbott Architect Analyser.
Results 47 patients had cortisol measured. The clinical indications were assessment of hypoglycaemia (n=16), adrenal insufficiency (n=15), jaundice (n=11) and hypopituitarism (n=7).
Cortisol was <100nmol/l in 19 patients: 7 had no further investigation; 3 proceeded directly to standard short synacthen test (SSST) and passed; 9 had repeat cortisol levels tested: 3 were above 100nmol/l and 5 out of the remaining 6 had further investigation (SSST or Corticotrophin Releasing Test [CRH]) which 3 passed.
Conclusions The median cortisol was 260nmol/l (range 42–793nmol/l). 1 patient with a random cortisol of 42nmol/l passed a SSST.

For investigation of adrenal insufficiency, the median cortisol was 182nmol/l (range 46–503nmol/l). 2 patients with random cortisols of 82 and 85nmol/l passed a SSST while a third with a level of 98nmol/l had a borderline SSST result.
For jaundice screen, the median cortisol was 132nmol/l (range <40–407nmol/l). One patient with a cortisol of 47nmol/l went on to pass a SSST.
For hypopituitarism, the median cortisol was 40nmol/l (range <40–146nmol/l). Four children in this group with baseline cortisol levels <40nmol/l proceeded to a SSST which 3 passed. A child with suspected septo-optic dysplasia and a baseline cortisol of 87nmol/l failed a CRH test. One infant with baseline of 69nmol/l underwent no further testing.
Results are illustrated in graph 1.
Conclusion Reviewing this cohort of 47 patients, 3 are now known to have cortisol deficiency. In 3, the random cortisol was less than 100nmol/l and they had additional clinical features. A third patient has congenital adrenal hyperplasia, and the cortisol at presentation was 130nmol/l. Interpretation of a cortisol result must be undertaken with the clinical history and additional biochemical results and unless there are features indicating an underlying problem, a random low cortisol is not diagnostic.

Ethics and Law Forum/British Academy of Childhood Disability

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**NON-THERAPEUTIC CIRCUMCISION IN 'HIGH-RISK' CHILDREN IN A CHILDREN'S HOSPITAL: CONSENT AND SAFETY**
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Aims Non-therapeutic circumcision (NTC) is controversial. Religious freedoms and suggested health benefits are balanced against non-medically indicated surgery in children who cannot consent.