

that Al-Jurayyan¹ substantially relied upon measurements of various serum hormones and their metabolites in ascertaining the etiologies of ambiguous genitalia in his retrospective study on Saudi neonates. It should be noticed that reference intervals provided on laboratory reports are essential for appropriate interpretation of test results, and can significantly impact clinical decision-making and the quality of patient care. Unfortunately, critical gaps currently exist in accurate and up-to-date pediatric reference intervals for accurate interpretation of laboratory tests. These critical gaps in the available pediatric laboratory reference intervals have the clear potential of contributing to erroneous diagnosis or misdiagnosis of many diseases of childhood and adolescence. Most of the available "normal" ranges for laboratory tests were determined over two decades ago on older instruments and technologies, and are no longer relevant considering the current testing technology used by clinical laboratories. Thus, it is critical and of utmost urgency that a more acceptable and comprehensive database be established.² This seems obvious on considering various factors affecting the measurement of serum level of 17-hydroxyprogesterone to diagnose congenital adrenal hyperplasia, a major cause of ambiguous genitalia in Saudi neonates.^{1,3} For instance, males were noticed to have significantly higher levels of 17-hydroxyprogesterone concentration than females with median and mean (SD) values of 22 and 22 (12) nmol/L. Similarly, low birth weight babies were found to have significantly higher levels than normal birth weight babies with median and mean (SD) values of 21 and 24 (12) nmol/L. Preterm babies were also found to have significantly higher levels than full-term babies,

RE: Ambiguous genitalia: two decades of experience

To the Editor: Apart from a detailed history, proper physical examination, and sound imaging and chromosomal studies, I presume

letters

median and mean (SD) values of 25 and 29 (16) nmol/L.⁴ Considering the aforementioned factors is essential to set cut-off values to precisely evaluate various hormonal profiles and their metabolites in those with ambiguous genitalia. Also, that would be useful in neonatal screening program for congenital adrenal hyperplasia.

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The author declined to reply.
