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Characteristic Features of Reproductive Hormone Profiles in Late Adolescent and Adult Females with Complete Androgen Insensitivity Syndrome.

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Abstract
Little is known about gonadotropins and sex steroid levels in postpubertal women with complete androgen insensitivity syndrome (CAIS). In order to define reproductive hormone profiles in women with CAIS and intact gonads, 42 postpubertal females with proven CAIS (age range 14-50 years) with testes in situ were examined. Reproductive hormone values [testosterone (T), estradiol (E2), sex hormone-binding globulin (SHBG), luteinizing hormone (LH), follicle-stimulating hormone (FSH)] were assessed by commercially available immunoassays. In women with CAIS, LH levels (median 18.5 IU/l, range 5.5-51.1 IU/l) were elevated above the usual adult reference ranges, whereas FSH values (3.5 IU/l, 0.4-16.3 IU/l) were not. Basal T (20 nmol/l, 6-52 nmol/l) and E2 values (113 pmol/l, 18-257 pmol/l) were found in the usual adult male reference ranges; SHBG levels (53 nmol/l, 15-180 nmol/l) were in the adult female reference range. Calculated free androgen indices (Tx10^5/SHBG: 380, 114.8-63) and aromatization indices (E2/T: 0.052, 0.020-0.196) did not differ from the reference ranges for adult men given in the literature (Tx10^5/SHBG: 315-936; E2/T: 0.03-0.07). Reproductive hormone profiles in women with CAIS do not follow the usual male/female pattern, suggesting a specific postpubertal hormone milieu. Albeit calculation of CAIS-specific reference ranges requires larger series and standardization of laboratory methods, these results may be a prerequisite for the identification of pathologic hormone patterns in women with CAIS and gonads in situ. The present data will also be useful to monitor hormone replacement therapy in individuals with removed gonads, © 2015 S. Karger AG, Basel.

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