

# Overexpression of CYP19A1 aromatase in Leydig cells is associated with steroidogenic dysfunction in subjects with Sertoli cell-only syndrome

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© 2016 American Society of Andrology and European Academy of Andrology Several observational studies have showed a combination of lower testosterone (T) to LH ratio and higher estradiol (E2) to T ratio in secretory infertile men compared to men with normal spermatogenesis, suggesting a steroidogenic dysfunction of Leydig cells (Lc) that may involve increased aromatase activity. Low T/LH ratio is associated with Lc hyperplasia, which together with LH hyperstimulation may represent compensation for impaired T production. Aromatase expression and oestrogen production are mainly detected in Lc of the testis, although Sertoli and germ cells also contribute to testicular aromatase activity. The aim of this study was to assess the transcriptional expression of CYP19A1 (aromatase) in isolated Lc of subjects with Sertoli cell-only syndrome (SCOS) and signs of Lc impairment. Nineteen patients with SCOS and 10 controls with normal spermatogenesis who had medical indication of testicular biopsy fo