Journal of Andrology, Vol 13, Issue 5 361-367, Copyright © 1992 by The American Society of Andrology

JOURNAL ARTICLE

Human Sertoli cells in vitro. Lactate, estradiol-17 beta and transferrin production

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Human Sertoli cell parameters, namely lactate, estradiol-17 beta, and transferrin production, were determined after a 24-hour incubation with either human follicle stimulating hormone (FSH) or dbcAMP in the presence or absence of testosterone plus a phosphodiesterase inhibitor (1-methyl-3-isobutylxanthine; MIX). Testicular tissues were obtained from 10 young patients (mean age, 29 years); using a 3-step enzymatic treatment, Sertoli cell enriched preparations (> 92%) were studied after 4 days as primary cultures. No significant changes in lactate, estradiol-17 beta, and transferrin outputs have been observed according to age in patients ranging in age from 16 years to 47 years. Sertoli cell production of the compounds is controlled by testosterone plus MIX; FSH (or dbcAMP) treatment only slightly improves their synthesis. It is suggested that human Sertoli cell function, as far as the parameters measured in this study are concerned, is likely regulated by cAMP-dependent and independent pathways.

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