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## JOURNAL ARTICLE

# Whole cell and nuclear androgen uptake in skin fibroblasts from infertile men

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In order to reexamine the hypothesis that a high percentage of infertile men with oligo/azoospermia have androgen resistance due to androgen receptor abnormalities, both whole cell and nuclear uptake of [3H]R1881 (a synthetic, nonmetabolizable androgen) were measured in intact, dispersed fibroblasts cultured from pubic skin biopsy specimens of 15 men selected because of infertility associated with varying degrees of oligozoospermia. Eight men had sperm densities less than or equal to  $2 \times 10^6/ml$ ; 7 were greater than  $2 \times 10^6/ml$ . Serum levels of FSH and LH were elevated in the severely oligo/azoospermic group, but normal in the other infertile men; concentrations of testosterone, estradiol, and prolactin were normal in both groups. The controls were six normal, age-matched, fertile males. There was no difference in binding capacity or dissociation constant for androgen uptake either into whole cells ( $3940 \pm 940$  [mean  $\pm$  SE] sites/cell vs.  $4700 \pm 1120$  sites/cell,  $P = NS$ ) or into nuclei ( $1360 \pm 340$  sites/cell vs.  $1460 \pm 340$  sites/cell,  $P = NS$ ) of the fibroblasts from the patients vs. the controls, respectively. Furthermore, there was no correlation between patient sperm densities and fibroblast whole cell or nuclear uptake binding capacities. Finally, there was no difference in any androgen binding parameter when only the fibroblasts from the men with severe oligozoospermia or azoospermia were compared with the controls. The authors conclude that the infertility of men with severe testicular germ cell depletion cannot be accounted for by a quantitative androgen receptor abnormality in their pubic skin fibroblasts. (ABSTRACT TRUNCATED AT 250 WORDS)

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