Journal of Andrology, Vol 6, Issue 6 386-391, Copyright © 1985 by The American Society of Andrology

JOURNAL ARTICLE

The effect of delta 9-tetrahydrocannabinol in utero exposure on rat offspring fertility and ventral prostate gland morphology

B. S. Ahluwalia, S. U. Rajguru and G. H. Nolan

Male rats exposed in utero to delta 9-tetrahydrocannabinol (delta 9-THC) had lower levels of testosterone (T) and luteinizing hormone (LH) prior to puberty (P less than 0.01). At puberty, the levels returned to within the normal range. Ultrastructural examination of the ventral prostate gland at puberty revealed alterations suggestive of degenerative changes. A drastic reduction in secretory granules and acini reflected depressed androgen production and function during the developmental period. The fertility of the F1 and F2 male offspring was decreased by 30 to 40%. It is concluded that THC exposure in utero caused a permanent reduction in fertility and altered ventral prostate gland morphology.