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THE EFFECT OF STEROID HORMONES ON THE GROWTH PATTERN AND RNA SYNTHESIS IN HUMAN BENIGN PROSTATIC HYPERPLASIA IN ORGAN CULTURE

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testosterone treated human BPH in organ culture.

Human benign prostatic hyperplasia converts testosterone to various 5α meta-

MATERIALS AND METHODS

The hyperplastic prostatic tissue was obtained by transurethral resection from 6 patients between 62 and 86 years of age.

chemical Centre, Amersham) was added to cuboidal and the alveolar lumen dilated;

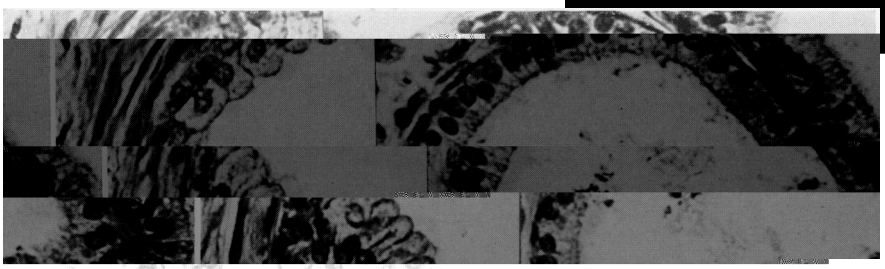

FIG. 1.
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veoli

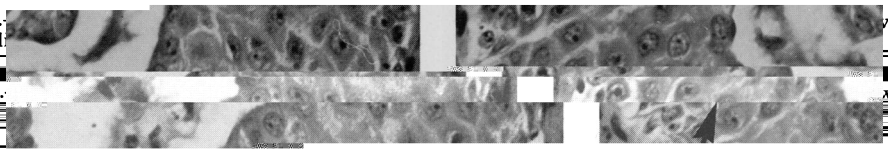

FIG. 2.
wing

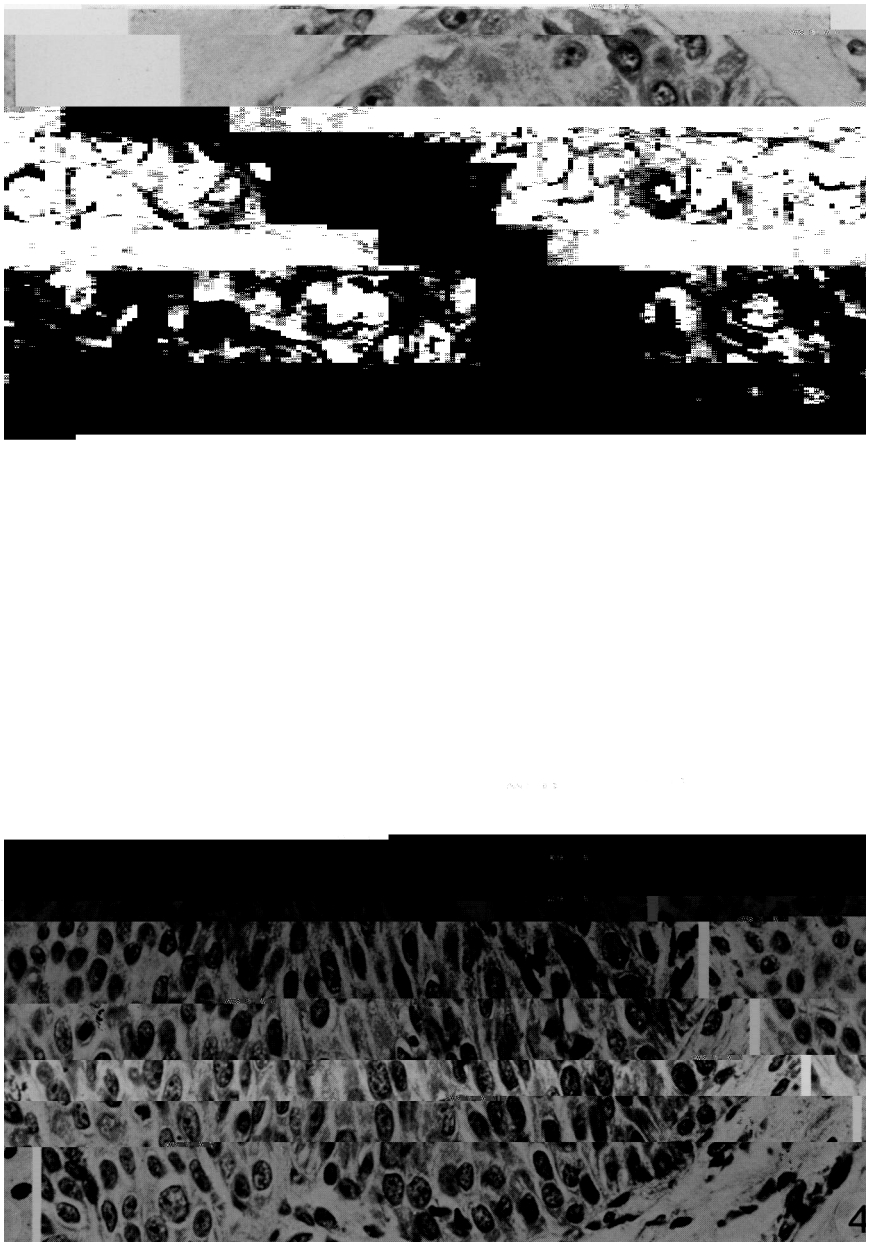

FIG. 3.—Alveolus in human BPH grown for 6 days with testosterone. The epithelium has

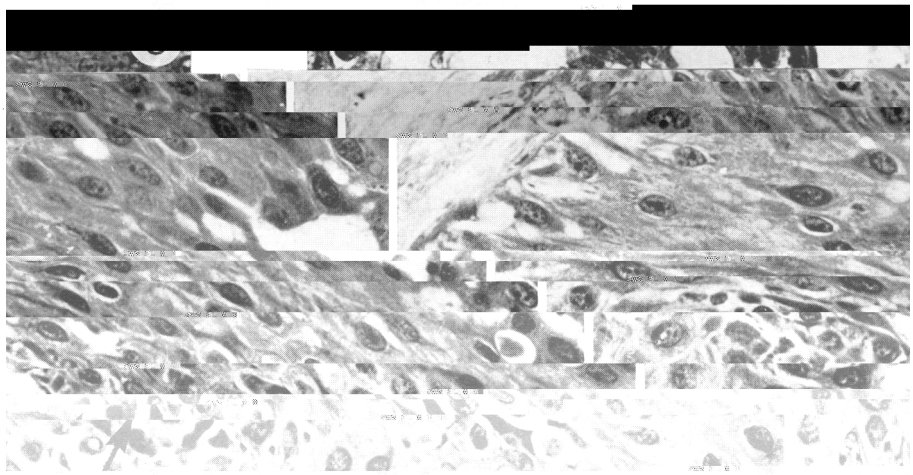

FIG. 5.—Alveolus in human BPH grown for 6 days with 3β-androstanediol showing slight cell multi-

FIG. 7.—Autoradiograph showing uptake of ^{3}H-uridine in alveolar epithelium of human BPH grown for 4 days in non-supplemented control medium. H. and E. ×600.

FIG. 8.—Autoradiograph showing uptake of ^{3}H-uridine in alveolar epithelium of human BPH

epithelial cell proliferation; in most alveoli labelled cells and as average grain number

under the same conditions. In the un- fies both the degree of growth stimulation

substantial but lower than in the BPH and the effect of testosterone was more marked both as regards number of labelled cells and grain counts per cell. The tonofibril formation seen in the controls can be considered a first step towards squamous metaplasia. This interpretation agrees well with similar