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## JOURNAL ARTICLE

# Ultrastructural lesions in testes from hyperprolactinemic men

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Testicular tissue from eight men with prolactinomas and elevated serum prolactin were evaluated by light (LM) and transmission electron microscopy (TEM). A semiquantitative assessment of testicular morphology was employed to provide a morphology index for each tissue specimen. Although in each biopsy specimen germ cell exfoliation was evident, as was abnormal structural change in the seminiferous epithelium, there was no apparent correlation with the overall degree of tissue pathology (morphology index) and the serum level of prolactin. All of the tissue displayed variably thickened seminiferous tubule walls which, when viewed by TEM, were composed of thickened laminae propriae and redundant and involuted basal laminae. Likewise, all tubules contained Sertoli cells with overt cytoplasmic degeneration, principally in the apical (adluminal) region of the cell. This was visualized, in part, as a retraction of the apical cytoplasm from periluminal spermatids and degeneration or absence of Sertoli-germ cell junctional specializations. Sertoli-Sertoli cell junctional complexes appeared structurally intact. Leydig cell ultrastructure was typical of normal cells and contained a variable amount of lipid and smooth endoplasmic reticulum. This also was without positive correlation with the overall degree of tissue pathology or level of serum prolactin. Our results demonstrate the variable degree of testicular pathology associated with hyperprolactinemia in man, and suggest that abnormal tubule walls and altered Sertoli cell ultrastructure are consistent findings in this abnormal endocrine condition.

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