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<p>Title (type in CAPITAL LETTERS, leave one blank line before the text)  <b>ULTRASTRUCTURAL CHANGES IN DETRUSOR HYPOCONTRACTILITY</b></p> <p><u>AIMS OF STUDY</u> : A report by Elbadawi, A., S. V. Yalla, et al. (1993)<sup>1</sup>, has shown an ultrastructural basis to detrusor hypocontractility (DHC). This study set out to validate the above, and to assess whether specific ultrastructural changes are present in patients with DHC when compared to age-matched controls.</p> <p><u>METHODS</u> : The subjects were recruited from the urodynamic clinic. In patients for whom cystoscopy was clinically indicated, a detrusor muscle biopsy was taken for electron microscopic examination. Stratified by urodynamic finding, 10 patients were recruited in the DHC group, and 10 in the non-DHC ( control ) group. The mean age was 73.2 years and 69.5 years, respectively. The mean post-void residual volume ( PVR ) was 440ml in the former, and less than 100 ml in the latter .</p> <p><u>RESULTS</u> : Features of the 'degeneration pattern" previously reported were present in all 10 DHC patients. These features include: variation in myocyte electron density; sarcoplasmic vacuolation; intracellular lamellar bodies; sarcoplasmic sequestration; and axonal degeneration. These features were absent in all the controls. Three of the 10 DHC patients have bladder capacity of greater than 1500ml. In these 3 patients, the 'hyperelastosis' pattern, consisting of an overabundance of elastin fibres in the interstitium, was identified.</p> <p><u>CONCLUSION</u> : In our study, specific and consistent ultrastructural changes were found in bladder hypocontractility and chronic bladder overdistension. These changes may have a potential in selecting out patients who will not respond to surgical therapy, such as transurethral resection of the prostate.</p> <p>1. Elbadawi, A., S. V. Yalla, et al. (1993). "Structural basis of geriatric voiding dysfunction. II. Aging detrusor: normal versus impaired contractility." <u>Journal of Urology</u> <b>150</b>: 1657-1667.</p>