

Transrectal Ultrasonography after Spinal Cord Injury

G. J. Fellows, L. B. Cannell, G. Ravichandran

National Spinal Injuries Centre, Stoke Mandeville Hospital, U.K.

Visualisation of the bladder and urethra can be carried out by radiology, (cysto-urethrography) or transrectal ultrasonography. We have used the latter technique successfully after cord injury and compared the information it provides with radiology. The equipment used was a Toshiba Sonolayer Model SAL-30A with intracorporeal linear array probe Model IV A 306A.

Ultrasonography and radiology gave comparable information regarding bladder size and shape, the dimensions of the prostatic and membranous urethra, opening and closure of the bladder neck and of the distal sphincter mechanism. Ultrasonography did not show vesico-ureteric reflux or intraprostatic reflux, but did reveal movement in periurethral tissues caused by contraction of sphincters and pelvic muscles which was not seen on radiology. Ureteric efflux of urine could be seen. Further advantages of ultrasonography include (1) no contrast medium is required (2) catheterisation is not necessary (3) there is no radiation hazard, therefore the examination may be prolonged and repeated (4) the images are not obscured by pelvic bones (5) the apparatus is portable and can be used on the ward.

For repeated and prolonged visualisation of the lower urinary tract ultrasonography has advantages over radiology.