Summary

The urinary system was one of the first systems to be evaluated with ultrasound. Recently, the development of high-resolution, real time transducers and their placement into sonoendoscopic probes have made ultrasound an accepted and accurate modality for the diagnosis of disorders of the lower genitourinary system.

Improvement in technology now makes possible detailed examination of the bladder by ultrasound.

It is obvious that accurate detection and staging of the extent of urinary bladder carcinoma is critical for planning appropriate management and discussing prognosis with the patient . Ultrasonography is expected to have an important role in defining the tumor extension through and outside the bladder wall .

In this study we tried to compare between Transabdominal (TAUS) and Transrectal (TRUS) Ultrasound in diagnosis of urinary bladder lesions. Seventy one selected male patients with bladder pathology (tumor, stones or diverticula) as detected by clinical assessment and radiological investigations including PUT, IVU and CT for patients with filling defects on IVU.

Their age ranged from 40 to 82 years. This study was done in Urology Department, Benha Faculty of Medicine. They

were selected from the urology outpatient clinic from December 2001 to April 2003. Selected patients were put in three groups:

GROUP I: 44 Patients with bladder tumors.

GROUP II: 21 Patients with bladder stones.

GROUP III: 6 Patients with bladder diverticula.

All the patients were evaluated by TAUS and TRUS. As regards to the detection of bladder tumors by TAUS and TRUS according to their sites are recorded in comparison to the final accurate detection obtained by cystoscopy. TAUS was able to detect 31/44(70.45%), while TRUS was able to detect 37/44(84.09%) of bladder tumors. Thus, TRUS was superior than TAUS in detection of bladder tumors specially those at anterior bladder wall and bladder neck area.

The ultrasonographic staging results were compared to the pathological stages results obtained by histopathological examination of biopsies taken from bladder tumors during cystoscopy. Accurate staging was seen in 34.09% of cases with bladder tumors by TAUS and 54.54% by TRUS. Over staging was 6.81 by both TAUS and TRUS. Under staging was 31.81% by TAUS and 22.72% by TRUS.

Concerning results of detection of bladder stones by TAUS and TRUS, it was 21/21(100%) by TAUS and 17/21(80.95%) by TRUS.

Finally, results of detection of bladder diverticula, it was 6/6 (100%) by both TAUS and TRUS.