

Material and Method:

Prostate gland hyperplasia which is presented in previous chapter should be investigated, mainly two means: clinical examination and ultrasonography. Although clinical examination, definitely physical rectal examination is the first line of investigation; but this method is not always perfect and standardized. So a practical ultrasonography tool is used as a basic guideline for the screening of BPH. This study was carried in the Khartoum. The study was targets on Sudanese male patient who come to ultrasound department. The age of target population above the 50years, this is common age for occurrence of Benign Prostatic Hyperplasia. The total number of patients was 50patients.

Mainly the ultrasound of the bladder must be full .Give 4or 5 glasses of fluid and examine after one hour. Alternatively, full the bladder through a urethral catheter with sterile normal saline: stop when the patient feels uncomfortable. Avoid catheterization if possible because of the risk of infection. The patient should lie supine but may need to be rotated obliquely. The patient should be relaxed, lying comfortably and breathing quietly. The transducer uses a 3.5MHZ .Scanning start with transverse from the pubic symphysis up wards to the umbilicus. Follow with longitudinal scan, moving from one side of the lower abdomen to the other. These scans will usually be sufficient, but it is not always easy to see the position of the lateral and anterior walls of the bladder and patients may have to be turned 30-45degree to see an area more clearly. Any area that appears abnormal must be viewed in several projections. After scanning, the patient should be empty the bladder and should then be rescanned; the full urinary bladder appears as a large, echo-free area arising out of the pelvis. Start by assessing the smoothness of the interior wall of the bladder and its symmetry in transverse section. The thickness

of the bladder wall will vary with the degree of distention but should always be approximately the same all around the bladder. Any local area of thickening is abnormal. When distended, the normal bladder wall is less than 4mm thick. After scanning, the patient should empty. Normally, there should be no residual urine: if there is, the quantity should be estimated. Measure the transverse diameter (T) of the bladder in centimetres, multiply it by the longitudinal diameter (L) in centimetres and then by the AP diameter in centimetres, multiply the total by 0,52. This measures the residual urine in millilitres.