SUMMARY

Ultrasonographic diagnosis of urinary bladder carcinoma can be subdivided into two problems : 1- Tumour detection (including the differential diagnosis), and II- Tumour staging. Exophytic bladder carcinomas appear as intraluminal polypoidal filling defects projecting from the echogenic bladder wall into the anechoic bladder lumen. They are hypoechoic compared to the echogenic bladder wall and do not alter their location on changing patient position. Larger tumours have complex architecture due to haemorrhage and necrosis. Superficial non-infiltrating tumours give an impression of mucosal irregularities without distortion or fixation of the bladder wall with sharp demarcation between the tumour and the adjacent normal mucosa. They have well defined base. Infiltrating tumours cause disrruption of the echogenic bladder wall beneath the tumour with dimenution of the bladder capacity. The tend to have broader base. Extravesical extension shows features of infitrative tumoure and in addition irregular masses are present in the surrounding pelvic tissues.

Concering the ultrasonographic staging of urinary bladder carcinoma both Jewett-Strong-Marshal and TNM classifications are used. The ultrasonographic findings based on rigidity and continuity of the bladder wall as well as the reduction of the

bladder capacity. More recently, the degree of tumour iniltration into the bladder wall is exposed under various levels of amplifier gain. Accordingly, ladder tumours can be classified as follow:

- Superficial tumours (Ta - T1): the echodense bladder wall underlying the less echogenic tumour appear smooth and uninterrupted without deformity or reduction of the bladder capacity.

- Tumours infiltrating the bladder wall (T2 - T3a) : the echodense bladder wall is interrupted without deformity or reduction of the bladder capacity.

- Tumours extending beyond the bladder wall (T3b - T4): the perivesical tissue is involved by the hypoechoic tumour tissue with deformity of the wall and reduction of the bladder capacity. The perivesical structures may be involved.

The internal iliac lymph nodes are the most common sites of metastases. Pelvic lymphadenopathy are often detected by transabdominal approach. The main role of transuretheral scanning is useful in evaluatingthe primary tumour and to monitor the depth of transuretheral resection of a bladder tumour. Transrectal and transuretheral scanning can offer informations concerning the conditions of the baldder wall e.g

detecting the degree of tumour infiltration.

An overall accuracy of only 62 % in evaluating bladder tumours by ultrasound. This accuracy rate is related to the size and location of the tumour. The detection accuracy for tumours less than 5 mm in diameter was as low as 33.3% compared to 83.3% for those between 1-2 cm and 95% for those more than 2 cm diameter. A low accuracy rate was observed for tumours located in bladder neck and dome in contrast to those located on the posterior and lateral walls.