

## **SUMMARY AND CONCLUSION**

Carcinoma of the urinary bladder is one of the most common malignant tumors of the urinary tract in male and female patients. In Egypt, the situation is worse as a result of Bilharziasis and bladder cancer represents a major health problem.

Pre-operative tumor staging is of prime importance for both therapeutic planning and prognostic assessment as treatment decision depends on whether the tumor is superficial or invasive and ability to identify patients who may benefit from aggressive potentially curative therapy.

Still cystoscopic biopsy is the best diagnostic modality for assessment of muscle wall invasive. However, it cannot assess valuable prognostic data such as perivesical tumor extension, lymphatic metastases and distal spread. For this purpose, different imaging modalities have been used to evaluate the local extend of the tumor whether localized, extensive or metastatic .

MRI is an imaging technique with several potential advantages as cross sectional images are produced in any plane providing better demonstration of areas that one difficult to be imaged conventional. Soft tissue is significantly better with MR imaging and the signal void from the flowing blood allows blood vessels to be better delineated without the use of IV contrast and thus avoiding confusion with small lymph nodes. MRI shows superiority in evaluation of prostatic or seminal vesicles invasion in addition to better differentiation post biopsy effect and the tumor itself.

MR imaging of the urinary bladder has been investigated extensively and most of the published reports have concentrated on the ability of MR imaging to diagnose and stage primary urinary bladder carcinoma.

Various conventional sequences of MRI and recent sequences as DW MR images showed excellent agreement with those at conventional cystoscopy.

MR imaging provides better and more accurate staging than other imaging modalities for differentiating various stages of superficial or muscle infiltrating tumors and the newly developed MRI techniques will have great impact on evaluation and follow up of urinary bladder cancer.