

THE BEST TREATMENT OF HIGH-RISK NON-MUSCLE-INVASIVE UROTHELIAL CANCER OF BLADDER

At diagnosis, 70–80 % of bladder cancer is non-muscle invasive (NMIBC) and of those 20–25 % progress to muscle-invasive disease during a patient's lifetime [1]. Pathologically, NMIBC papillary tumours confined to the epithelium and those which have invaded the underlying lamina propria are classified as stage Ta and stage T1, respectively, while flat, high grade tumours that are confined to the mucosa are classified as carcinoma in situ (CIS/Tis) [2].

Patients with high-risk NMIBC (T1/Tis, with high grade/G3, or CIS) represent a challenging group as they are at greater risk of recurrence and progression.

Intravesical Bacilli Calmette-Guerin (BCG) is commonly used as first line therapy in this patient group but there is a current worldwide shortage. BCG has been shown to reduce recurrence in high-risk NMIBC and is more effective than other intravesical agents including mitomycin C, epirubicin, interferon-alpha and gemcitabine[3].

A recent systemic review and meta-analysis of 22 trials examining intra-vesical chemo-hyperthermia (CHT) for NMIBC showed a 59 % reduction in recurrence rate for TURB + CHT compared to TURBT + chemotherapy alone [4]

The high risk of recurrence and progression associated with conservative treatment of high-risk NMIBC indicates there is a considerable risk of understaging by TUR and imaging alone [5,6]. Cystectomy allows pelvic lymphadenectomy which permits accurate staging (up to 18 % of T1 patients have positive lymph nodes) and can be therapeutic regarding nodal metastases [7].

High-risk NMIBC is the greatest challenge for the urologist because patients have high recurrence rates and a considerable risk of progression to muscle-invasive disease, corresponding with a significantly decreased disease-specific survival. Upfront Primary radical cystectomy offers a high chance of cure in this cohort (80–90 %) and is a more radical treatment option which patients need to be counseled carefully about [8].

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