

Initial Radical Cystectomy vs BCG for Patients at High Risk of Recurrence of Urinary Bladder Cancer

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Introduction

In the world of urinary bladder cancer [1], this malignancy affects millions of people worldwide [2]. Patients with high-risk bladder cancer are at an increased rate of progression and recurrence [3], which can lead to both morbidity and mortality.

Furthermore, two treatment options for high-risk bladder cancer are initial radical cystectomy and bacillus Calmette-Guerin therapy. In addition to that the bladder is surgically removed during the initial radicalcystectomy [6] as BCG involves the installation of a live attenuated strain of mycobacterium bovis into the bladder [3].

The decision between radical cystectomy and Bacillus Calmette-Guérin (BCG) therapy in the treatment of high-risk urinarybladder cancer requires careful assessment of a number of parameters, with each strategy offering unique benefits and considerations. [5]

A radical cystectomy is a surgical procedurein which the bladder is removed entirely.

Patients with severe or advanced bladder cancer are frequently advised to have this surgery, especially if the illness has spreadto the bladder wall's muscle layers.

Radiation cystectomy has a major impact onthe patient's quality of life even if it removesthe cancer's main cause [6]. Urine must be directed along a different conduit to exit the body in order to facilitate the treatment. This change necessitates adaptation because it can have a big impact on day-to-day living.

However, BCG therapy is a non-invasive strategy that uses immunotherapy to strengthen the immune system's defenses against cancerous cells [7]. A weakened strainof the Mycobacterium bovis bacteria is injected into the bladder as part of the treatment to trigger an immunological response. therapy may necessitate severalweeks of sessions.

The choice between these two highly personalized methods is based on various aspects, including the patient's preferences, general health, and the stage and severity of the malignancy. BCG therapy tries to use thebody's immune system to target cancer cells while protecting the bladder, whereas

radicalcystectomy offers a permanent solution by removing the bladder. Ultimately, the best.

In brief, BCG immunotherapy triggers an immune response against tumors, decreasingthe risk of malignancy progression without necessitating bladder removal. While potentially enhancing patients' quality of life, there exists a risk of under-treatment. In contrast, Radical cystectomy effectively eliminates bladder malignancy and associated muscles, yielding optimal patient outcomes. However, drawbacks include potential overtreatment, postoperative complications, and a potential reduction in patients' quality of life. Apart from this, Currently, intravesical BCG is advised for prophylaxis following transurethral resection of bladder tumors in intermediate-risk- risk and high-risk bladder cancer cases.

BCG treatment is employed for early-stage bladder cancer, specifically for carcinoma insitu and non-muscle invasive bladder cancers. It is not effective for metastasized bladder cancer [9]. Subsequently, the selection of the therapeutic approach for a patient is contingent upon their health statusand the professional judgment of the specialist physician [10]. Further investigation is recommended among the preference for BCG treatment over early Radical Cystectomy and vice versa.

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