

Muscle Invasive Bladder Cancer (MIBC) — The Gold Standard Radical Cystectomy or Bladder Preserving Approach, YES or NO?

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The Bladder cancer is one of the most common Urologic cancers and approximately one fourth are reported as Muscle Invasive Bladder Cancer (MIBC).¹⁻³ As per Karachi Cancer Registry, bladder cancer is the fourth most common cancer in men and fifteen in women, in Pakistan.⁴ Like all cancer treatment, Primary Goal in treating Bladder Cancer is to achieve Disease Free Survival. With increasing health awareness among patients and technological advancements, more and more efforts are directed to secondary goals like Organ Preservation and Quality of Life (QoL). Radical Cystectomy (RC) has been the Gold Standard for MIBC to date with established local control which is often curative but frequently at the cost of long-term morbidity, loss of body image and compromised QoL.^{1,5-7} Partial/segmental Cystectomy and Trimodality treatment (TMT) are the two reported options as Bladder Sparing Treatment. The former "involves full-thickness surgical removal of the bladder tumour and surrounding wall", Bilateral Pelvic Lymphadenectomy and preferably with Neo-adjuvant Chemotherapy.⁵ This could perhaps be the best that is offered to a patient with MIBC. Unfortunately because of a very stringent criteria aiming at Primary Goal in Cancer treatment only 5.8-18.9% of patients with MIBC are suitable candidates for Partial/Segmental Cystectomy.⁸ As regards TMT, it consists of maximal TUR BT, Radiation Therapy, and Chemotherapy. It has much broader indication and is proven to be potentially curative through large data available in various series and high volume systemic reviews. It is important to note that many urologist still perceive TMT as inferior against RC.¹

This is perhaps due to the non-availability of any true comparative data. And few attempts at Randomized comparisons has largely turned unfeasible. This is primarily affected by various sources of bias predominantly the difference in Tumour staging, TMT being 'Clinical' and RC pathological. The other confounding factors include advanced age, poor

performance status and co-morbidities. All being more common in the TMT group. It is the lack of confidence on TMT that 25%-35% between 70-80 years and 35-55% over 80 years do not receive potentially curative therapy.^{1,9,10} The major concerns with the modality (TMT) include post therapy functional status of bladder and the need for second major procedure as Salvage cystectomy. However the available data reveals that 75% of TMT patients maintain intact and functioning bladder. Likewise only 21% undergo salvage cystectomy without survival compromise.^{1,11} Yes, we do not have randomized comparable data between RC and TMT but other series with long-term data suggest comparable outcome with TMT (60-80% Complete Response rates) and RC in terms of Overall and disease - specific survival rates even with salvage cystectomy if necessary.¹² Although the data is particularly lacking in Asian population, one of the series reported from dedicated Urology Tertiary referral centre by Tunio et al from Karachi, Pakistan shared comparable outcome with TMT for sizable sample of 111 patients with a median Follow up of 3 years. However, it is prudent to identify the most suitable candidates for bladder preservation. Literature have suggested "completeness of TURBT, Primary Tumour size (< 5cm), early tumour stage, absence of hydronephrosis and no evidence of lymph nodal metastasis as some of the important factors for better outcome in Bladder Sparing Treatment approaches. The additional poor prognostic indicators include DNA Ploidy, Tumour Grade and HER 2 over expression".⁴

The debate for and against organ preservation is becoming more relevant with increasing octogenarians and QoL concerns. This writing is intended to sensitize the urology fraternity with similar considerations and to have an insight on What should be done, What Could be done and WHAT IS DONE!

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