

27-Delayed post diuretic ¹⁸F-FDG PET/CT: Can it help in determination of the best clinical decision for patients with muscle invasive urinary bladder cancer [MIBC]?

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Abstract:

Objective: to highlight the efficacy of delayed post diuretic ¹⁸F-FDG PET/CT in staging and restaging MIBC, allowing metabolic evaluation of the primary disease, in addition to detection of the associated nodal and distant metastasis which in turn can help to determine the best clinical decision for patients.

Patients and methods: prospective study included 35 patients with MIBC, divided into two main groups:

Group A (18patients) coming for initial staging [after conventional diagnostic studies within 30 days before PET/CT]. **Group B** (17 patients) coming for post-therapeutic assessment. All patients of both groups were analyzed by a multidisciplinary team and the clinical decisions before and after ¹⁸F-FDG PET CT were analyzed.

Results:

- In **Group A**, 7/18 patients were upstaged with consequent changing in therapeutic management. No downstaging were reported.
- In **Group B**, response was reported in 11/17 patients where they proceeded to radical surgery with excellent agreement to pathological findings. 3/17 patients were stationary and 3/17 patients were progressed.
- PET/CT helped in determination of the best treatment decision in 68.6% of patients among both groups.

Conclusion: delayed post diuretic PET/CT imaging is an important diagnostic tool in evaluation MIBC patients, which may consequently helps to determinate the best clinical decision for them.

Keywords: ¹⁸F-FDG PET/CT, muscle invasive bladder cancer, post diuretic delayed images.