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Urologic Oncology: Seminars and Original Investigations 37 (2019) 346–347

UROLOGIC ONCOLOGY

Letter to Editor

Purified protein derivative skin test–One swallow does not make a summer

Re: *Purified protein derivative skin test reactions are associated with clinical outcomes of patients with nonmuscle invasive bladder cancer treated with induction Bacillus Calmette-Guérin therapy*

Keywords: Nonmuscle-invasive bladder cancer; Bacillus Calmette-Guerin; Recurrence; Progression; Purified protein derivative skin test

Dear Editors,

We have read with great interest the article entitled *Purified protein derivative skin test reactions are associated with clinical outcomes of patients with nonmuscle invasive bladder cancer treated with induction Bacillus Calmette-Guérin therapy* published in Urologic Oncology [1].

In the study on 288 patients, authors presented the correlation of Purified Protein Derivative (PPD) skin test result on BCG immunotherapy results. They have found statistically significant differences in recurrence-free survival, progression-free survival, and treatment toxicity.

The subject of PDD testing before BCG introduction have been analysed previously in small groups of patients receiving short BCG regimens, still, without clear conclusions [2,3].

Recently, we have addressed the similar questions in the study on 823 patients from Central Europe [4]. However, we have not found any statistically significant differences in terms of oncologic outcomes nor complications between patients, regardless their PPD status.

Except for the obvious genetic disparities between 2 populations, the differences in the results may arise from various issues. First, in Niwa paper, only patients with induction BCG course were included, while in our study, mean instillation number given was 19. As widely proved, the maintenance courses are recommended to improve treatment results, especially in high risk patients [5]. What follows, introduction of longer schedules may lead to concealment of modest differences in survival. Second, despite the comparable basic characteristic of the groups, the population of our study is significantly bigger, and observed for median 12 months longer. What is more, the authors do not compare the results with patients without PDD testing. Third, the BCG strains were different–with Tokyo and Connaught strains used in Niwa group and Moreau, TICE, and RIVM in our population. Fourth, majority of patients in both populations underwent mandatory vaccinations with BCG. However, because of World War 2, Polish population was highly exposed for tuberculosis, which, to our knowledge, was not the case for Japanese patients. Finally, the classification of PPD skin reactions was different in both studies.

It has to be highlighted that both studies are burdened with some limitations that impede the clinical relevance. They are both nonrandomized and retrospective, homogenous in terms of genotype, presenting populations previously immunised with BCG. Additionally, both papers did not assess new prognostic factors such as histology variants, depth of submucosal or lymphovascular invasion, influence of restaging transurethral resection of bladder tumor (TURB), quality of the TURB, and immediate chemotherapy instillation.

As stated by Niwa, further prospective validation in other populations including patients who have not received BCG immunization or lived in countries with a low incidence of tuberculosis is needed to fully understand the PDD influence on BCG immunotherapy outcomes.

Conflict of interest

The authors declare that they have no conflict of interest.

Compliance with ethical standards

None.

Funding Disclosure: No competing financial interests exist.

https://doi.org/10.1016/j.urolonc.2019.01.024

Ethical approval

None.

Informed consent

None.

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