EDITORIAL COMMENT

Sławomir Poletajew, Piotr Radziszewski

Department of Urology, Medical University of Warsaw, Poland

Identifying the risk of recurrence and progression of bladder urothelial carcinoma in patients undergoing transurethral resection due to non–muscle invasive bladder cancer (NMIBC) is the key point in planning the follow–up scheme and further treatment. In the past, urologists have had to rely on only pathological findings, mainly stage of the disease and grade of cancer cells [1, 2]. Since the publication of European Organization for Research and Treatment of Cancer (EORTC) risk tables, much more accurate and detailed information can be obtained [3]. Despite significant improvement, EORTC risk tables are not free of important limitations and their validation in current series of patients is needed. Simultaneously, the search for new prognostic tools is ongoing, with molecular markers and gene expression profiling being the most promising.

EORTC risk tables – the lights and shadows

Tables calculating the risk of tumor recurrence and progression, which were proposed by the EORTC Genitourinary Group, are the only prognostic tools recommended by European Association of Urology (EAU) for clinical use [4]. Based on six different variables (tumor stage, tumor grade, tumor diameter, number of tumors, presence of concomitant tumor in situ, and prior recurrence rate) patients are defined as low–, intermediate–, or high–risk, separately for the risk of recurrence and progression. The fact that the EORTC tables have been proposed for use by the EAU can be a sign of their high accuracy or, on the contrary, the lack of more reliable tools. In fact, both assumptions seem to be incorrect.

The most prominent advantage of EORTC tables is, undoubtedly, its simple implementation into every day clinical practice. Risk calculation does not demand special laboratories or expensive additional tests. However, the stratification is not free of important limitations. The majority of them are associated with considerable progress in diagnostics of bladder tumors observed in last years, not considered by EORTC experts. The risk tables are based on clinical outcomes of over 2,500 patients treated and included into follow–up in years 1979–1989, when indications and schemes of intravesical adjuvant therapy were not clearly determined. What is more, the only method finding foci of tumor in situ in that cohort was the urothelium image in white light cystoscopy. Finally, a second resection in cases of pT1 and G3 or high–grade carcinomas was not a standard. Currently, when intravesical immuno– and chemotherapy is widely used in high–risk patients and when new technologies (blue light cystoscopy, narrow band imaging etc.) minimize the risk of tumor in situ misdiagnosis, EORTC tables are not as accurate as expected. Many studies performed in recent years confirmed that EORTC tables overestimate the risk of progression and recurrence in intermediate and high–risk patients, which is explained mainly by the facts mentioned above [5–8]. The Spanish Urological Oncology Group, CUETO, even proposed a modified scoring system for BCG–treated patients that significantly decreases the probability of overestimation of recurrence and progression risk in this group of patients [9]. Another clinical limitation of EORTC tables–based calculation, is the delay of risk stratification in relation to surgery that is associated with time consuming pathological examination. Hence, there is no chance to avoid the implementation of immediate postoperative intravesical chemotherapy in low risk patients and EAU experts are forced to recommend the first instillation immediately after resection in all patients [4]. Finally, it must be stated that the process of EORTC tables validation and correction has yet to be completed.

EORTC risk tables and Polish reality

EORTC risk tables have never been validated in the Central European population. In the latest issue of the journal, Borkowska et al. presented a study aimed at 1) the determination of recurrence and progression rates at 1–year following transurethral resection of the tumor in patients with NMIBC and 2) the comparison of these findings with the risk calculated according to the EORTC tables [10]. In general, the results of this study were not surprising. At one year observation time, the authors found the recurrence and progression rates of 25% and 12%, respectively. The EORTC tables overestimated the risk of recurrence in intermediate– and high–risk patients, as well as overestimated the risk of progression in all risk groups. Despite the fact that the study group was not homogenous, we may think that the obtained differences resulted from adjuvant treatment implemented in these patients. Unfortunately, the authors do not give mention of the proportion of patients submitted

to intravesical chemotherapy and about its influence on the accuracy of EORTC risk tables.

Another important problem is the fact that patients at low–risk of recurrence and/or progression are seen relatively uncommonly in clinical practice. This has special meaning in the context of EAU guidelines, which in fact do not provide clear recommendations for follow–up in patients of intermediate risk [4]. However, in the cohort described by Borkowska et al. over 30% and over 40% of patients were assigned to groups of low risk of recurrence and progression, respectively [10]. While these numbers are high, they cannot be interpreted in terms of epidemiology due to small sample size.

The most important limitation of the published study is probably the data presentation. As long as statistical tests are not involved in data analysis, one can call into question the relevance of conclusions. The number of observed subjects is rather low, so the risk of inappropriate conclusion in this setting is considerable.

References

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