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COMMENTARY



Predicting Lymph Nodal Metastases in Patients with Appendiceal Cancers *Invited Brief Commentary on a Paper Entitled: A Nomogram for Predicting Lymph Nodal Metastases in Patients with Appendiceal Cancers: An Analysis of SEER Database*

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The neoplastic lesions of the appendix are considered rare. The data derived from the Surveillance, Epidemiology, and End Results (SEER) database, as well as other sources, estimate that the incidence of these tumors is nearly 2.5 per million people annually [1,2]. Most of them are found incidentally, in approximately 1% of appendectomies [3], and a significant proportion is limited within the appendix. Even more interesting is the fact that, the neoplasms of the appendix, consisted mainly by the neuroendocrine tumors (approximately 50% of all appendiceal tumors), are not believed to be completely “innocent entities”, since 30–50% present with lymph node (LN) invasion, whereas distant metastases can be found in almost 10% of cases [4–6].

So far, there is lack of specific guidance, or consensus between scientific societies about the exact criteria by which an individual with appendiceal cancer should be treated with a more extensive surgical approach rather than a simple appendectomy. Previous reports have identified certain risk factors that were correlated with lymphatic spread which would guide for a more aggressive surgical intervention. However, they were limited by the small number of patients and the lack of combination of suggested risk factors to better characterize the high risk group. According to the current recommendations, all non-carcinoid tumors should undergo right hemicolectomy, whereas the type of surgical intervention for carcinoid tumors of the appendix depends on size, high grade or high mitotic index, mesoappendiceal invasion, location, and presence of goblet-cell histology [2, 7].

The current study “A Nomogram for predicting Lymph Nodal Metastases in Patients with Appendiceal Cancers: An Analysis of SEER Database” [8], interestingly tries to establish a risk assessment system as to predict the likelihood of LN dissemination, as well as to offer a treatment strategy for individuals with such tumors. The authors, using the SEER database, have concluded that the main factors contributing to increased risk of LN metastases are: age, tumor histology,

stage and size, presence of distant metastases and lastly, grade of the tumor which is placed on the top of the pyramid as the most significant factor.

Although important risk prognostic factors proposed by guidelines of national committees (ENETS, NANETS) and similar reports, such as lymphovascular invasion, mesoappendiceal invasion, higher levels of Chromogranin A (CgA), Ki-67 grading and tumor size 1–2 cm are not included in the nomogram proposed by the authors, the rest aforementioned factors and, especially tumor grade, are indeed, considered important by the current literature [9–12]. Nevertheless, the role of perforation, a well described risk factor for disease recurrence has not been considered while both adenomas and adenocarcinomas were analyzed together.

It is of importance to emphasize though, that the power of the current, well-designed study is based on the large sample size of SEER, while a training and a validation cohort has been used. This is significant, since most of the previous studies had limited number of patients, which in combination with the appendiceal tumors rarity, especially those with intermediate risk wherein most of the ambiguity lies, make the retrospective reports perplexing and inconclusive.

The results of this study will need to be validated in an independent population group and ideally in a prospective study. It still remains unclear what is the best surgical approach and follow-up strategy in patients with appendiceal tumors. However, the development of nomograms is in the right direction to personalize patients’ management on specific clinical and if possible molecular characteristics.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Author contributions

All authors equally contributed to this paper with conception and design of the study, literature review and analysis, drafting and critical revision and editing, and final approval of the final version.

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