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DO EXIST THE "PERFECT" BIOMARKER IN METASTATIC RENAL CANCER?

G. MORGIA, G.I. RUSSO

Department of Urology, University of Catania, Catania, Italy

Over the past years, the management options for patients with renal cell carcinoma (RCC) at all stages have increased[1]. Partial or total nephrectomy is the standard treatment for locally resectable tumors with curative intention[2]. However, 20-40% of surgically treated tumors will develop recurrence during follow-up, which underlines the importance of tailored follow-up regimes and the evaluation of effectiveness of adjuvant therapies[3].

In this context, the use of several prognostic or predictive factors and models have reached popularity with the aim to predict outcomes of patients affected by RCC. In general, all these prognostic tools are more accurate than the standard TNM classification or Fuhrman grade in predicting survival outcomes[4].

Recently, D'Aniello et al. describe the current options regarding prognostic and predictive biomarkers in metastatic renal cancer[5].

Authors are commended for the global overview of most common prognostic and predictive biomarkers that can be considered during the assessment of metastatic renal cancer.

However, although several biomarkers and models have been proposed, several doubts still persist about their discriminative capabilities in predicting oncological outcomes for metastatic RCC. A substantial advantage of prognostic tools is the ability to measure the predictive accuracy, which allows an objective evaluation of the performance itself[6].

For example, one of the limitations to the wide use of nomograms, despite the fact that they outperform risk grouping and tables[1], are the lack of robust and widespread assessment of their accuracy and the different racial differences among population not evaluated and finally their different reported accuracy among series.

We suggest that when choosing one or several of these models one should considerthe respective predictive ability and accuracy[10]. Unfortunately, many times these information are lacking.

Furthermore, one should also take into account that the oncological outcomes for metastatic renal cancer cannot be defined with certainty. For example, the recurrence free rate could be limited by the heterogeneity of follow-up or the characteristics of the imaging techniques used.

One of the recent novelty of this report is the overview of biologic markers of RCC but there are still many gaps to fill. Reports of whole genome studies are welcomed to better understand these implications.

We think that the next challenge could be to better identify the biology of RCC and therefore to facilitate identification of therapeutic targets and relative response markers and diagnostic strategies that may prevent the development of recurrence.

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Corresponding Author: Giuseppe Morgia, MD; e-mail: gmorgia@policlinico.unict.it

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