Editorial Commentary

Comment for "nomogram establishment for surgery-related complications in partial nephrectomy"

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Comment on: Mari A, Campi R, Schiavina R, *et al.* Nomogram for predicting the likelihood of postoperative surgical complications in patients treated with partial nephrectomy: a prospective multicentre observational study (the RECORd 2 proj ect). BJU Int 2019;124:93-102.

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Mari *et al.* described the factors leading to post-surgical complications of partial nephrectomy. The areas of study included 3 approaches: open, laparoscopy, and robotic-assisted. In total, their study included 2,584 patients, and analyzed the following: significant potential risk factors such as age, ASA score, clinical stage (T2 *vs.* T1a), PADUA score, preoperative anemia, and open and laparoscopic approach *vs.* robotic-assisted. Using these factors for analyses, they developed the predicting nomogram for post-surgical complications (1).

First, based on that nomogram, many surgeons could know the evaluation and the methods for predicting the adverse events (AEs) occurrence and let the patients and other medical staff including the physicians know the risks and points to pay attention to during surgeries and post-surgical management.

As an introduction, more partial nephrectomies have been performed due to innovations on the techniques and surgical instruments, including robotic system than before. However, the kind of AEs s needs to be discussed because robotic-assisted partial nephrectomy (RAPN) has been relevant in the world and demonstrated available data for the surgery-related factors and its ability to control cancer. So, the next step we need to undertake is to compare the other kinds of modalities such as open and laparoscopic surgeries to AEs. Based on this point, this article nicely showed them through the potential establishment of nomograms under the comparison, which every urologist needs to bear in mind for information. This is owing to the modality (open, laparoscopic or robotics) has variations based on the country, so further follow-up is also necessary for polished nomogram up data.

We want to ask several questions about this study. First, the prediction of the distribution of complications (according to Clavien scoring) may need to be announced for a further understanding and development of this study. Next, many readers may ask what kind of T2 patients have PN surgeries. We imagine there are compelling cases with risk factors such as post-nephrectomy case, and this may also be a risk for the occurrence of post-surgical complications; therefore, it may need to clarify and assess this. Also, many readers may like to know the influence of surgeons' experience on post-surgical complication and the occurrence. We imagine open PN was done in the early stage in the study period. So, laparoscopically in the middle and robotic-assisted one in late one, meaning that many surgeons initiated open and changed to laparoscopic, then robotics. This suggests that the surgeons' (not institutional) experience factors cannot be negligible.

Moreover, the approaches (intraperitoneal *vs.* retroperitoneal) may need to be assessed. We previously studied the comparative factors between transperitoneal and retroperitoneal approaches such as operative time, warm ischemic time, and the adverse events but there were no significant factors detected in our initial case series in RAPN series (2). However, another study demonstrated that the retroperitoneal approach was associated with a significantly shorter mean length of stay (LOS) when compared with

transperitoneal one (2.2 *vs.* 2.6 days, P=0.01) (3). This may suggest the further necessity of such comparison study mainly focusing on postoperative complications.

Finally, the information of prophylactic antibiotic administration (the kind of antibiotics and duration) for prevention of infectious AEs and pre-and post-surgical managements are consistent with all the cases or may need to be announced, for a further understanding of this study including hospitalized duration. Moreover, the area in Italy (countryside or urban area; and Northern Italy and Southern Italy) needs to be assessed because many readers do not know the Italian medical situations and difference based on the regions.

In summary, Mari *et al.* nicely showed their nomogram for post-PN complications. Based on our comments shown above, it may be more interesting for the readers if there is an emphasis on the additional clinical implications.

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Footnote

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