tumor size and indication. *Eur Urol* 2007; **52**: 148–54
18 **Samplaski MK, Hernandez AV, Gill AS, Simmons MN.** C-index associates with functional outcoms after laparoscopic partial nephrectomy. *J Urol* 2010; **184**: 2259–63
19 **Ljungberg B, Cowan N, Hanbury DC *et al*.** Renal cell carcinoma. EAU Guidelines 2011

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Abbreviations: **ASA**, American Society of Anesthesiologists; **AUC**, area under the curve; **eGFR**, estimated GFR; **NSS**, nephron-sparing surgery; **PN**, partial nephrectomy; **RN**, radical nephrectomy; **ROC**, receiver operating characteristic; **RCC**, renal cell carcinoma.

EDITORIAL COMMENT

IMPLEMENTATION AND EXTERNAL VALIDATION OF PREOPERATIVE ASPECTS AND DIMENSIONS USED FOR AN ANATOMICAL (PADUA) SCORE FOR PREDICTING COMPLICATIONS IN 74 CONSECUTIVE PARTIAL NEPHRECTOMIES

Neprhon-sparing surgery was initially reserved for patients at high risk of developing renal failure after kidney surgery to treat renal cancer. Several series have shown OPN to be equivalent to open RN in terms of long-term cancer-free survival with unilateral renal involvement, unifocal disease and a tumour size of <4 cm [1–5].

Van Poppel *et al.* [1], in a randomized, prospective, phase 3 trial reported equivalent oncological outcome after NSS and RN, and suggested that NSS may be considered as an acceptable approach for small asymptomatic RCC. Fergany *et al.* [3] reported a 10-year CSS of 100% in patients who underwent a NSS for localized RCC. Lesage *et al.* [4] concluded that a better health-related quality of life is achieved after PN than after RN.

In 2009, Ficarra *et al.* proposed a new classification (PADUA-score) to propose a standardised and original classification system of renal tumours suitable for conservative treatment based on their anatomical aspects and dimensions; to evaluate the ability of this classification system to predict the risk of overall complications in a series of patients who underwent NSS; and to define a complication risk-group stratification of patients according to the different score of anatomical classification [6].

According to this, the following variables and scores were assigned for every tumour:

1 face location, anterior (a) or posterior (p)
2 longitudinal location, upper or inferior pole (1 point); middle pole (2 points)
3 rim location, lateral (1 point) and medial (2 points)
4 tumour deepening into the parenchyma, ≥50% exophytic (1 point), <50% exophytic (2 points), entirely endophytic (3 points)
5 renal sinus involvement, not involved (1 point); involved (2 points)
6 urinary collecting system involvement, not involved (1 point), dislocated or infiltrated (2 points)
7 tumour size, <4 cm (1 point), 4.1–7 cm (2 points), >7 cm (3 points) [5].

The authors concluded that the PADUA score is a simple anatomical system that can be used to predict the risk of surgical and medical perioperative complications in patients undergoing open NSS.

In this manuscript, the authors applicated the PADUA-score to 74 consecutive patients who underwent an open partial nephrectomy in order validate its reproducibility and ability to relate to the pathology report as well as to predict the outcome and the complication rate.

Surely the retrospective nature and the small cohort of the patients represents a limitation of this study; nevertheless it is the first external validation of the PADUA nephrometric system, in a single institution.

Another potential limitation of this study is the lack of evaluation of warm ischaemia time, which is an important indirect parameter of the difficulty of conservative treatments so as the lack of informations concerning the postoperative renal function

The authors concluded that a total PADUA score cut-off value of 8 was the threshold that would predict a significant increase in complication rate.

According to the results of this study (comparable to that described in the literature), we can consider to adopt the PADUA-score in the daily surgical practice as a valid support in optimizing the operation strategy.

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REFERENCES

1 **Van Poppel H, Da Pozzo L, Albrecht W *et al*.** A prospective randomized EORTC intergroup phase 3 study comparing the complications of elective nephron-sparing surgery and radical nephrectomy for low-stage renal cell carcinoma. *Eur Urol* 2007; **51**: 1606–15
2 **Becker F, Van Poppel H, Hakenberg OW *et al*.** Assessing the impact of ischaemia time during partial nephrectomy. *Eur Urol* 2009; **56**: 625–34
3 **Fergany AF, Hafez KS, Novick AC.** Long-term results of nephron sparing surgery for localized renal cell carcinoma: 10-year follow-up. *J Urol* 2000; **163**: 442–5
4 **Lesage K, Joniau S, Fransis K, Van Poppel H.** Comparison between open partial nephrectomy and radical nephrectomy for renal tumours: perioperative outcome and health-related quality of life. *Eur Urol* 2007; **51**: 614–20
5 **Touijer K, Jacqmin D, Kavoussi LR *et al*.** The expanding role of partial nephrectomy: a critical analysis of indications, results, and complications. *Eur Urol* 2010; **57**: 214–22
6 **Ficarra V, Novara G, Secco S *et al*.** Preoperative aspects and dimensions used for an anatomical (PADUA) classification of renal tumours in patients who are candidates for nephron-sparing surgery. *Eur Urol* 2009; **56**: 786–93

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