

Conflicts of interest: The authors have nothing to disclose.

References

- [1] Ferlay J, Steliarova-Foucher E, Lortet-Tieulent J, et al. Cancer incidence and mortality patterns in Europe: estimates for 40 countries in 2012. *Eur J Cancer* 2013;49:1374–403.
- [2] Andersson K, Bray F, Arbyn M, et al. The interface of population-based cancer registries and biobanks in etiological and clinical research—current and future perspectives. *Acta Oncol* 2010;49:1227–34.
- [3] zur Hausen H. Red meat consumption and cancer: reasons to suspect involvement of bovine infectious factors in colorectal cancer. *Int J Cancer* 2012;130:2475–83.

Re: Phase 2 Trial of Neoadjuvant Axitinib in Patients with Locally Advanced Nonmetastatic Clear Cell Renal Cell Carcinoma

Karam JA, Devine CE, Urbauer DL, et al

Eur Urol 2014;66:874–80

Experts' summary:

Karam et al presented a prospective single-center open-label nonrandomized phase 2 study of axitinib for 12 wk before curative surgery in patients with locally advanced nonmetastatic clear cell renal cell carcinoma (ccRCC) to investigate the safety and efficacy of this oral tyrosine kinase inhibitor in downsizing renal tumors. Following successful completion of neoadjuvant therapy, patients underwent partial or radical nephrectomy (open or laparoscopic at the surgeon's discretion). Median reduction of the primary renal tumor diameter was 28.3% in the 23 patients with evaluable response at 12 wk, with 100% of the tumors showing shrinkage. Median tumor diameter per patient changed from 10.0 cm to 6.9 cm. The authors proved an excellent primary tumor response to neoadjuvant axitinib that was feasible and safe, at least in the perioperative period, with manageable adverse events while on drug therapy and postoperatively.

Experts' comments:

Although nephron-sparing surgery (NSS) is still underutilized as a treatment for patients with RCC, especially in nonacademic hospitals, basic research findings and clinical data have recently suggested that NSS may decrease the probability of cardiovascular events after renal surgery when compared with radical nephrectomy (RN) [1]. Furthermore, patients who undergo RN have worse mortality and a higher risk to develop stage IV chronic kidney disease than patients who undergo NSS [2].

In recent years, several studies [3–5] have investigated the use of neoadjuvant targeted therapies in nonmetastatic ccRCC, demonstrating several advantages by improving surgical resection of the tumor. This has determined a changing surgical approach from RN to partial nephrectomy [5], thus preserving cardiovascular and renal function and improving overall survival. The study presented by Karam et al is interesting because they investigated for the first time the safety and efficacy of axitinib in downsizing tumors in patients with nonmetastatic ccRCC. Although the

Martin Janssen^{a,*}, Frank Becker^b

^aDepartment of Urology and Pediatric Urology, Saarland University Medical Center and Saarland University Faculty of Medicine, Homburg/Saar, Germany

^bBoxberg Centre, Urological Group and Clinic Derouet/Pönicke/Becker, Neunkirchen, Germany

*Corresponding author. Department of Urology and Pediatric Urology, Saarland University Medical Center and Saarland University Faculty of Medicine, Homburg/Saar, Germany.
E-mail address: martin.janssen@uks.eu (M. Janssen).

<http://dx.doi.org/10.1016/j.eururo.2015.03.011>

authors report the reduction of primary renal tumor diameter, unfortunately, they do not provide other important oncologic characteristics, such as the PADUA score or RENAL nephrometry score. This missing information could help define the better surgical approach (open or mini-invasive) for performing NSS; this should not be only at the surgeon's discretion.

Neoadjuvant tyrosine kinase inhibitors in nonmetastatic ccRCC represent valid therapy for downstaging tumor mass and reducing the necessity of RN. This opens a whole new area of investigation to elucidate the optimal target therapy and its duration in the neoadjuvant setting and to determine definitively whether presurgical therapy enhances the feasibility of NSS.

Conflicts of interest: The authors have nothing to disclose.

References

- [1] Capitanio U, Terrone C, Antonelli A, et al. Nephron-sparing techniques independently decrease the risk of cardiovascular events relative to radical nephrectomy in patients with a T1a-T1b renal mass and normal preoperative renal function. *Eur Urol* 2015;67:683–9.
- [2] Kaushik D, Kim SP, Childs A, et al. Overall survival and development of stage IV chronic kidney disease in patients undergoing partial and radical nephrectomy for benign renal tumors. *Eur Urol* 2013;64:600–6.
- [3] Rini BI, Escudier B, Tomczak P, et al. Comparative effectiveness of axitinib versus sorafenib in advanced renal cell carcinoma (AXIS): a randomised phase 3 trial. *Lancet* 2011;378:1931–9.
- [4] Abel EJ, Culp SH, Tannir NM, et al. Primary tumor response to targeted agents in patients with metastatic renal cell carcinoma. *Eur Urol* 2011;59:10–5.
- [5] Silberstein JL, Millard F, Mehrazin R, et al. Feasibility and efficacy of neoadjuvant sunitinib before nephron-sparing surgery. *BJU Int* 2010;106:1270–6.

Francesco Greco^{a,b,*}, Vincenzo Mirone^b

^aDepartment of Urology and Mini-invasive Surgery, Romolo Hospital, Rocca di Neto, Crotone, Italy

^bDepartment of Urology, University Federico II, Naples, Italy

*Corresponding author. Department of Urology and Mini-invasive Surgery, Romolo Hospital, Rocca di Neto, Crotone, Italy.
E-mail address: francesco_greco@ymail.com (F. Greco).

<http://dx.doi.org/10.1016/j.eururo.2015.03.012>