## Letter to the Editor

Reply to Satoru Taguchi, Tohru Nakagawa, and Hiroshi Fukuhara's Letter to the Editor re: Jürgen E. Gschwend, Matthias M. Heck, Jan Lehmann, et al. Extended Versus Limited Lymph Node Dissection in Bladder Cancer Patients Undergoing Radical Cystectomy: Survival Results from a Prospective, Randomized Trial. Eur Urol 2019;75:604–11

We want to thank Taguchi and colleagues for their comments. It is true that the title of our article [1] states "limited versus extended lymph node dissection", but the study actually compared a standard lymph node dissection (LND) to a superextended LND according to template definitions in recent guidelines cited in our paper [2-4]. We noted this important fact in the legend to Fig. 1 [1], which states: "Nomenclature for LND templates was adopted from the original study protocol. Meanwhile, the nomenclature has undergone several changes in international guidelines in order to homogenize different template definitions used in the literature. The definition of a limited LND in this study currently is referred to as standard LND, and the definition of an extended LND in this study currently is referred to as extended or superextended LND". The original study protocol was developed in 2002, long before the recent nomenclature was defined. Taguchi et al hypothesize that the superextended LND in our trial might have been excessively invasive, resulting in a lower survival benefit for this group. However, except for a higher rate of lymphoceles requiring intervention within 90 d. we did not observe greater morbidity or mortality related to superextended LND. Rather, we speculate that the standard LND might have been too excessive (median of 19 lymph nodes removed) resulting in a lower survival difference than expected compared to superextended LND.

Furthermore, Taguchi and colleagues stated that the terminology for the primary endpoint of recurrence-free survival (RFS) was incorrectly applied in the present study. We defined RFS as the time from radical cystectomy (RC) to tumor recurrence or death from bladder cancer instead of the time to tumor recurrence or death from any cause. The reason for this slightly altered definition is the fact that death defined as "death from any cause" may underestimate the true effect of

the surgical technique used (different types of LND along with RC) because of competing risk factors unrelated to bladder cancer. This was demonstrated in a cystectomy series from the Memorial Sloan-Kettering Cancer Center [5]. However, if we had applied the latter definition to our study, the 5-yr RFS would have been 51.6% versus 45.4% (hazard ratio 0.85, 95% confidence interval 0.63-1.14) with a p value of 0.28, which would still not have reached statistical significance.

Finally, we do agree with Taguchi and colleagues that results from the upcoming SWOG S1011 trial comparing standard with extended LND need to be awaited.

Conflicts of interest: The authors have nothing to disclose.

## References

- [1] Gschwend JE, Heck MM, Lehmann J, et al. Extended versus limited lymph node dissection in bladder cancer patients undergoing radical cystectomy: survival results from a prospective, randomized trial. Eur Urol 2019;75:604–11.
- [2] Witjes JA, Comperat E, Cowan NC, et al. EAU guidelines on muscle-invasive and metastatic bladder cancer: summary of the 2013 guidelines. Eur Urol 2014;65:778–7792 https://doi.org/10.1016/j.eururo. 2013.11.046
- [3] Retz M, Gschwend JE, Maisch P. Short version of the German S3 guideline for bladder cancer. Urologe A 2016;55:1173–87 https:// doi.org/10.1007/s00120-016-0195-1
- [4] Chang SS, Bochner BH, Chou R, et al. Treatment of non-metastatic muscle-invasive bladder cancer: AUA/ASCO/ASTRO/SUO guideline. J Urol 2017;198:552–9 https://doi.org/10.1016/j.juro.2017.04.086
- [5] Gschwend JE, Dahm P, Fair WR. Disease specific survival as endpoint of outcome for bladder cancer patients following radical cystectomy. Eur Urol 2002;41:440–8.

Jürgen E. Gschwend\* Matthias Heck

Department of Urology, Technical University of Munich, Munich, Germany

\*Corresponding author. Department of Urology, Technical University of Munich, Ismaninger Strasse 22, 81675 Munich, Germany. Tel. +49 4140 2522; Fax: +49 4140 4843. E-mail address: juergen.gschwend@tum.de (J.E. Gschwend).

April 17, 2019