Editorial Comment

Editorial Comment from Dr Yamamoto to Identification of prostate cancer risk categories according to surgical margins status, pathological stage and Gleason score

To date, positive surgical margin (PSM) has been well documented as a risk factor of oncological outcome after radical prostatectomy (RP), and an indicator of adjuvant radiotherapy after RP.\(^1,2\) Schiavina et al. carried out RP for 837 men with organ-confined or locally-advanced prostate cancer (PCA).\(^3\) A total of 115 (22.8\%) of the 504 pT2 men, 86 (32.4\%) of the 265 pT3a and 22 (32.4\%) of the 68 pT3b were identified as PSM. Biochemical relapse (BCR)-free survival rates were 80.5\% and 62.7\% at 5 years and 10 years, respectively. Multivariate analysis showed that margin status, prostate-specific antigen and Gleason score (GS) significantly predicted BCR in the pT2 group, whereas only clinical stage and pathological GS were significant predictors of BCR in the pT3a group. Therefore, they concluded clinical stage and pathological GS were significant predictors of BCR on multivariate analysis, and GS remains one of the most reliable indicators for the decision to provide adjuvant treatment after RP.

These important findings have been shown in several previous reports, including this manuscript.\(^4,5\) However, an endpoint outcome of most previous reports, including this manuscript, was BCR but not cancer-related and all-cause mortalities. Boorjian et al. reported that the number and location of PSM did not predict mortality in large RP series, and that cancer-related mortality in patients with PSM was just 7\% at median follow up of 10.6 years.\(^6\) Conversely, Wright et al. reported that PSM was associated with cancer-related mortality.\(^7\) Hence, the authors noted that there was no significant difference for BCR after RP between patients with pT2 and PSM, and pT3a (with or without PSM); however, it would be of great interest to establish whether cancer-related mortality between the two groups differs significantly.

The authors might required further detailed analysis (e.g. Gleason grade [GG] and cancer volume at the margin) in the near future. For example, Savdie et al. investigated the impact of location, linear extent, number and GG at the margin for BCR after RP, and concluded that only GG 4 or 5 at the margin and seminal vesicle involvement were independent predictors of BCR on multivariate analysis, and adjuvant radiotherapy might not be necessary for patients with GG3 at the site of PSM.\(^5\)

As the author described, PSM is linked to surgical technique, the surgeon’s experience and pathological specimen handling. Furthermore, it is difficult to correctly diagnose surgical margin status at the apex and bladder neck without the prostate capsule. Therefore, we should understand that PSM is not a reliable pathological risk factor. As GS is not directly reflected in the existence of residual tumors after RP, however, their conclusion that GS is one of the most reliable indicators for the decision to provide adjuvant radiotherapy after RP might be debatable.

Shinya Yamamoto M.D., Ph.D.
Department of Urology, Cancer Institute Hospital, Japanese Foundation for Cancer Research, Tokyo, Japan
shinya.yamamoto@jfcr.or.jp

DOI: 10.1111/iju.12134

Conflict of interest

None declared.

References