Editorial Comment

Editorial Comment to Significance of early prostate-specific antigen values after salvage radiotherapy in recurrent prostate cancer patients treated with surgery

Given that up to 35% of patients develop biochemical recurrence (BCR) after radical prostatectomy (RP), the use of salvage radiation therapy (SRT) to prevent progression and reduce mortality is appropriate for many patients. However, unlike RP or primary radiation where definitions of prostate-specific antigen (PSA) failure are widely accepted and allow early identification of patients for secondary treatments, there is no standard definition of PSA recurrence after SRT. Identifying PSA response criteria that predict tumor progression after SRT would allow the subset of men at greatest risk to receive early aggressive next-line treatment with the intent to improve long-term outcomes.

To address this specific matter, Chang et al., in the current issue of International Journal of Urology, examined whether the absolute PSA value or changes in PSA after SRT predicted clinical recurrence-free survival among 167 men who received SRT after RP. During a 53-month median follow-up period, 12% of men had a clinical recurrence (local, nodal or distant metastases), with the majority being nodal or distant. Just two factors were significantly predictive of clinical recurrence: absolute PSA level at 4 months post-SRT (<0.2 ng/mL had better outcomes), and the ratio of PSA at 4-month post-SRT to pre-SRT PSA (ratios <0.45 had better outcomes).

These results are indeed encouraging and if reproduced in larger studies, post-SRT PSA cut-offs could translate into clinical practice to help practitioners caring for SRT patients. However, before these results can be utilized in clinical practice, other clinical and pathological factors that lead to a poor PSA response after SRT, such as pre-SRT PSA levels, PSA doubling time and adverse pathological features after RP, should also be investigated in larger studies with longer follow up. Specifically, PSA doubling time was not evaluated in the present study, though others have shown it predicts response to SRT.

In putting these results in context, it is likely that men with an inadequate PSA response to SRT have residual disease outside the area of radiation, and are no longer candidates for further local treatment. As such, these men might be considered to harbor micrometastatic disease, and thus could benefit from early initiation of systemic therapy (i.e. androgen deprivation therapy). Although this issue can only be solved by prospective clinical trials, these men at the least are at high risk of clinical progression and require close follow up.

Ross M Simon M.D., Stephen J Freedland M.D. and Adriana C Vidal Ph.D.

1Division of Urology, Department of Surgery, Duke University School of Medicine, 2Surgery Section, Durham VA Medical Center, and 3Department of Pathology, Duke University School of Medicine, Durham, North Carolina, USA

adriana.vidal@dm.duke.edu

DOI: 10.1111/iju.12621

Conflict of interest

None declared.

References