

Treatment of pelvic nodes individualized by inclusion of sentinel nodes is feasible with IMRT, says

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Arnhem, The Netherlands- Treatment of pelvic nodes individualized by inclusion of sentinel nodes (SN) can be easily integrated into an IMRT-based treatment strategy, according to the new study conducted by a group of researchers from Tübingen and Munich in Germany. The target volume concept seems to correctly cover individual pelvic nodes, which is indicated by the absence of any nodal recurrence within five years of follow-up.

The results of the study are to be presented at the 5th European Multidisciplinary Meeting for Urological Cancer (EMUC) on 15-17 November 2013 in Marceille, France.

"Radiation [treatment](#) with long-term-androgen deprivation has level 1 evidence as treatment option for high risk prostate cancer patients," commented lead author of the study Dr. Arndt-Christian Müller of the Eberhard-Karls-Universität Tübingen.

"However, there is a discussion with regard to toxicity and efficacy concerning the inclusion of pelvic nodes into the radiation portals. With high conformal techniques such as IMRT for irradiation of pelvic [lymph nodes](#), target volume contouring becomes highly important. There are standard lymph node radiation target volumes, yet the individual lymph drainage of different patients is not taken into account."

According to the researchers, these new data on individual inclusion of sentinel nodes into the pelvic standard radiation target volumes with intensity modulated radiation therapy (IMRT) suggest that toxicity with advanced treatment techniques is low.

"With regard to efficacy, the absence of any nodal recurrence in the pelvis indicates that the sentinel node based target volume concept correctly covers individual pelvic lymph drainage," said Müller.

Regarding the risk profile in this series, such as high risk defined in one third by Gleason score 8-10, outcome parameters were at least comparable to available data of the same treatment period. Thus, this sentinel node-based approach justifies further evaluation including current dose-escalation strategies to prostate in a larger prospective series.

"Firstly, we conclude that treatment of pelvic nodes individualized by inclusion of SN is feasible with IMRT. Secondly, the absence of any nodal pelvic recurrence within five years of follow-up indicates efficacy of this individualized treatment concept, summarised Müller.

"We expect an improvement of PSA control and with longer follow-up and higher patient numbers a survival benefit for patients with individual inclusion of [sentinel lymph nodes](#)".

According to the authors, the results of the study could be followed up by further evaluation of dose-escalated IMRT to prostate +/- SN-guided pelvic IMRT or treatment stratification after SN-biopsy with IMRT of prostate-only for node negative patients and IMRT of prostate +/- SN-guided IMRT in case of affected pelvic nodes.

More information: Reference: Müller A.-C. et al, Sentinel node based individualization of pelvic IMRT for high risk prostate cancer, 5th

EMUC, Abstract O6.

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