The role of radical prostatectomy in patients with prostate cancer

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Even in the presence of screening, there is benefit to radical prostatectomy (RP) in prostate cancer patients, however, the benefit is limited to a subgroup of patients and can take years to become evident according to a study published February 14 in the Journal of the National Cancer Institute.

The Scandinavian Prostate Cancer Group Study Number 4 (SPCG-4) trial identified that RP lowered prostate cancer deaths with a statistically significant absolute mortality difference (AMD) between RP and watchful waiting (WW) of 6.1%. The Prostate Cancer Intervention Versus Observation Trail (PIVOT) recently published results from a US-based trial comparing the effectiveness of RP compared with watchful waiting (WW). The PIVOT trial found a non-statistically significant reduction in the risk of prostate cancer death in the RP group with an absolute risk reduction of 3% after a 12-year follow-up. Although these findings may seem inconsistent with the results from the Scandinavian trial, it is unknown if more frequent screen detection in PIVOT can explain the lower AMD.

In order to determine if a more frequent screen detection in PIVOT explains the lower AMD when compared to the SPCG-4 trial, Jing Xia, Ph.D., of the Fred Hutchinson Cancer Research Center in Seattle and colleagues, assumed that the SPCG-4 trial represented RP efficacy and prostate cancer survival in an unscreened population. They then adjusted prostate cancer survival using published estimates of overdiagnosis and lead time to evaluate the effect of screen detection on disease-specific
deaths and the observed AMD.

The researchers found that overdiagnosis and lead time explains the lower AMD in PIVOT if the RP efficacy and prostate cancer survival in the absence of screening are comparable to that of the SPCG-4 trial. They conclude that if these findings are the correct explanation, then a specific set of cases should not be treated with RP and that their identification should lead to a better understanding of the RP benefit in the remaining cases. "PIVOT should not be interpreted as evidence that RP is not efficacious in reducing prostate cancer mortality," the researchers write. "PIVOT should encourage us to develop tests to identify cases for which immediate treatment is beneficial."

**More information:** [DOI:10.1093/jnci/djt017](https://doi.org/10.1093/jnci/djt017)

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