

Association of the Placement of a Perirectal Hydrogel Spacer With the Clinical Outcomes of Men Receiving Radiotherapy for Prostate Cancer

A Systematic Review and Meta-analysis

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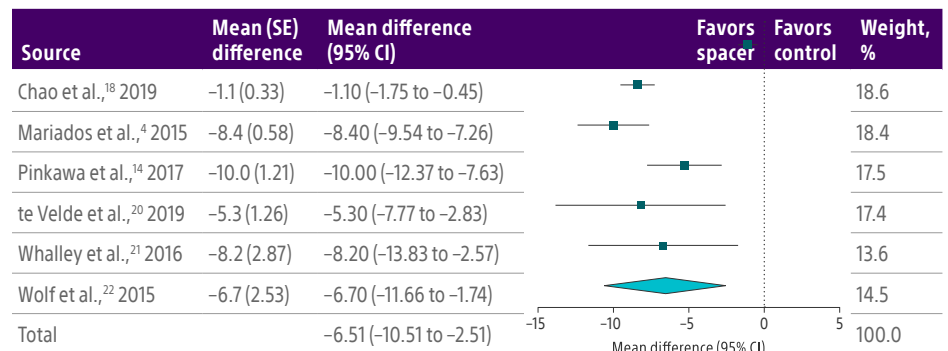
A systematic review and meta-analysis were conducted to evaluate the correlation between perirectal hydrogel spacer placement and clinical outcomes of men receiving radiotherapy for prostate cancer. The review consisted of 7 studies (1 randomized clinical trial and 6 cohort studies) with 1011 patients (486 receiving hydrogel spacer and 525 controls) with a median duration of patient follow-up of 26 months.

In 6 studies, the success rate of hydrogel placement was 97.0% and the mean perirectal space creation was 11.2mm. In 6 studies, the hydrogel spacer group received 66% less v70 rectal irradiation compared to controls. In 6 studies, the risk of grade 2 or higher rectal toxicities were comparable in early follow-up. However, risk of grade 2 or higher rectal toxic effects were 77% lower in the hydrogel spacer group in late follow-up in 6 studies.

In 2 studies, bowel-related quality of life were similar between both groups in early follow-up but were greater in the hydrogel spacer group in late follow-up.

This concluded that an injection of a hydrogel spacer was safe, provided prostate-rectum separation sufficient to reduce v70 rectal irradiation, and was associated with fewer rectal toxic effects and higher bowel-related quality of life for patients receiving prostate radiotherapy.

Figure 1. Rectal Irradiation With vs Without Perirectal Hydrogel Spacer



PBT was not the method used in the SpaceOAR™ Hydrogel single-blind Phase III trial performed to evaluate dosimetric and clinical effects of SpaceOAR Hydrogel. IG-IMRT delivered at 79.2 Gy in 1.8-Gy fractions was the method used.

Results from case studies are not necessarily predictive of results in other cases. Results in other cases may vary.

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