Adjuvant and Salvage Radiotherapy after Radical Prostatectomy in Prostate Cancer Patients.


Abstract

CONTEXT: Prostate cancer (PCa) patients found to have adverse pathologic features following radical prostatectomy (RP) are less likely to be cured with surgery alone.

OBJECTIVE: To analyze the role of postoperative radiotherapy (RT) in patients with aggressive PCa.

EVIDENCE ACQUISITION: We performed a systematic literature review of the Medline and EMBASE databases. The search strategy included the terms radical prostatectomy, adjuvant radiotherapy, and salvage radiotherapy, alone or in combination. We limited our search to studies published between January 2009 and August 2016.

EVIDENCE SYNTHESIS: Three randomized trials demonstrated that immediate RT after RP reduces the risk of recurrence in patients with aggressive PCa. However, immediate postoperative RT is associated with an increased risk of acute and late side effects ranging from 15% to 35% and 2% to 8%, respectively. Retrospective studies support the oncologic efficacy of initial observation followed by salvage RT administered at the first sign of recurrence; however, the impact of this delay on long-term control remains uncertain. Hopefully, ongoing randomized trials will shed light on the role of adjuvant RT versus observation±salvage RT in individuals with adverse features at RP. Accurate patient selection based on clinical characteristics and molecular profile is crucial. Dose escalation, whole-pelvis RT, novel techniques, and the use of hormonal therapy might improve the outcomes of postoperative RT.

CONCLUSIONS: Immediate RT reduces the risk of recurrence after RP in patients with aggressive disease. However, this approach is associated with an increase in the incidence of short- and long-term side effects. Observation followed by salvage RT administered at the first sign of recurrence might be associated with durable cancer control, but prospective randomized comparison with adjuvant RT is still awaited. Dose escalation, refinements in the technique, and the concomitant use of hormonal therapies might improve outcomes of patients undergoing postoperative RT.

PATIENT SUMMARY: Postoperative radiotherapy has an impact on oncologic outcomes in patients with aggressive disease characteristics. Salvage radiotherapy administered at the first sign of recurrence might be associated with durable cancer control in selected patients but
might compromise cure in others.

Copyright © 2017 European Association of Urology. Published by Elsevier B.V. All rights reserved.

KEYWORDS: Adjuvant radiotherapy; Prostate cancer; Radical prostatectomy; Radiotherapy; Salvage radiotherapy

PMID: 28189428 DOI: 10.1016/j.eururo.2017.01.039

LinkOut - more resources

PubMed Commons

0 comments

How to join PubMed Commons