This article is a comment on the article “BoHan et al, The Results of Early or Delayed Adjuvant Radiotherapy for Prostate Cancer with Pathological Adverse Tumor Characteristics: A Single Institute Experience.”

Surgical removal of the prostate and seminal vesicles has a high chance of cure when prostate cancer is confined to the prostate. High-risk features, such as the presence of extraprostatic extension (Stage pT3a or pT3b) and/or positive surgical margins found at the time of surgery increase the risk of the cancer recurring. Despite a stage shift to earlier cancer stages and lower tumor volumes for prostate cancer, pathologically advanced disease is detected at stage shift to earlier cancer stages and lower tumor volumes for time of surgery increase the risk of the cancer recurring. Despite a (Stage pT3a or pT3b) and/or positive surgical margins found at the time of surgery increase the risk of the cancer recurring. Despite a stage shift to earlier cancer stages and lower tumor volumes for prostate cancer, pathologically advanced disease is detected at 

The current study enrolled 53 men with prostate cancer of pathological adverse characteristics who had undergone RP, and compared outcomes of early (<3 months) and delayed (3–12 months) adjuvant radiotherapy (ART) after RP. The results showed trends of early ART improving 5-year biochemical-free survival, less salvage hormonal therapy, and more urethral stricture; however, there were no statistically significant differences.

On the issue of ART for men with histologically confirmed invasive prostate adenocarcinoma without regional lymph node involvement or distantly metastatic disease, who have undergone RP, three large randomized trials by the Southwest Oncology Group, the Arbeitsgemeinschaft Radiologische Onkologie, and the European Organization for Research and Treatment of Cancer have now reported on the beneficial outcome of ART in patients with pathological risk factors after prostatectomy. These three trials enrolled 1815 men who were randomized to either adjuvant external beam radiotherapy in the immediate postoperative period after prostatectomy, or to observation with therapies (including radiotherapy, androgen deprivation therapy, and other therapies) held in reserve for salvage radiotherapy (SRT). Median follow-up time ranged from 4.5 years to 12.6 years. According to these trials, ART following prostatectomy improved local control and biochemical progression-free survival. It did not affect overall survival, prostate cancer-specific mortality, or reduced metastasis at 5 years, but improved survival and reduced metastatic disease at 10 years. The results of this article seemed to be similar, but could not reach a statistically significant difference between the two groups. This might be due to the limited case numbers.

The primary reasons cited for choosing selective SRT over ART include the perceived toxicity of immediate post-RP radiotherapy, the potential overtreatment of patients with ART who may not have had a recurrence after RP, the importance of delaying radiotherapy to allow time for recovery of urinary and sexual function after RP, and the presumed equivalence of ART and SRT strategies for cancer control. According to these trials, ART increased more acute and late gastrointestinal toxicity, urinary stricture, and incontinence. However, it did not increase erectile dysfunction or degrade quality of life. Kowalczyk et al also reported the Surveillance, Epidemiology and End Results–Medicare data from 1995 to 2007, identifying 963 men with pT3N0 disease receiving early (<4 months) versus delayed (4–12 months) ART after RP; ART performed after 9 months was associated with fewer urethral strictures. Trends of urethral stricture were also noted at early ART in this article.

According to current evidence, for men who have undergone an RP and who have a longer life expectancy, radiotherapy should be considered for those with high-risk features following RP. Given the relevance of toxicity risk and the influence of radiation timing, it is important to accumulate more evidence. As such, it would be helpful to make a decision on whether to adopt early or delayed post-RP radiotherapy.

Conflicts of interest

The author declares that he has no financial or non-financial conflicts of interest related to the subject matter or materials discussed in the manuscript.

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References


