Neoadjuvant androgen suppression in patients treated with high-intensity focused ultrasound therapy

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Uchida T, Illing RO, Cathcart PJ, Emberton M. The effect of neoadjuvant androgen suppression on prostate cancer related outcomes after high-intensity focused ultrasound therapy. BJU Int 2006;98:770-2.

SUMMARY
The authors have performed this study to explore the effectiveness of neoadjuvant androgen suppression in patients of localized prostate cancer treated with high-intensity focused ultrasound (HIFU). From January 1999 to January 2005, they had treated 250 patients with HIFU. One hundred and fifty-four patients received neoadjuvant hormonal therapy and 96 were not treated with androgen suppression. Treatment failure was defined by presence of prostate cancer on biopsy taken six months after HIFU. In this unrandomized trial, the authors found a slightly lower treatment failure rate in patients who received neoadjuvant androgen suppression (31% vs. 34%), but this was not statistically significant (\(P = 0.119\)).

COMMENTS
Use of neoadjuvant/concurrent hormonal therapy for localized prostate cancer treated by radical radiotherapy is currently getting studied in many trials. Initial results have been encouraging with significant benefit in the relapse-free/PSA-free interval in these patients. There has been no study published so far studying the use of neoadjuvant androgen suppression in HIFU, this is the first one. The treatment failure was found in 47/154 (31%) patients treated with neoadjuvant androgen suppression as against to 33/96 (34%) patients treated with HIFU only. The difference is not very significant and one could not come to a definitive conclusion from this study. There are many flaws in this study (some of them are pointed out by the authors themselves) such as the nonrandomized design of the study; possible imbalance in the disease severity in both the groups; tendency to treat large-volume higher PSA disease with neoadjuvant androgen suppression as against to more favorable with HIFU alone and interpretation of biopsy after six months of HIFU treatment. Statistically speaking the authors needed 3500 patients in each arm to detect a significant difference of 3% with a power of 80%. Despite all these flaws, the study has been successful in emphasizing the fact that androgen suppression in HIFU does not have any significant side-effects and should be area of research/randomized trials in multimodality treatment of localized prostate cancer.

REFERENCE
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Prostate cancer treatment does not increase the risk of cardiovascular events

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Otto SJ, Schroder FH, de Koning HJ. Risk of cardiovascular mortality in prostate cancer patients in the rotterdam randomized screening trial. J Clin Oncol 2006;24:4184-9.

SUMMARY
This paper is aimed at studying the risk of cardiovascular disease mortality in patients with prostate cancer and to compare this with the risk in the general population. The study population consisted of participants of the Rotterdam section of the ESRPC trial (European Randomized Study of Screening for Prostate cancer). Standardized mortality ratios (SMRs) of cardiovascular mortality for 2221 prostate cancer patients has been calculated in this study including the analysis for the
treatment subgroups—radical radiotherapy (RT), radical surgery, watchful waiting and hormonal therapy. Cardiovascular mortality was defined as any deaths from cardiovascular disease, coronary artery disease, acute myocardial infarction, other diseases of the heart and cerebrovascular accidents. The treatment received by the prostate cancer patients was in the form of radical RT in 40.2%, radical prostatectomy in 30.3%, watchful waiting in 14.9% and hormonal therapy in 5.4% (unknown in 9.2%).

At mean follow-up of 5.5 years 12% of prostate cancer patients (258) had died. The SMRs for prostate cancer patients were found to be low in the range of 0.37-0.49 as compared to 0.90 in the general population. This low SMR was found in all patients irrespective of the treatment they had received. Therefore the authors have concluded that less emphasis should be put on risk of cardiovascular events as a contraindication for aggressive, especially surgical treatment for prostate cancer patients.

COMMENTS

While counseling the patients for choosing the treatment options in prostate cancer we tend to give significant importance to life expectancy, existing co-morbid conditions such as cardiac diseases and also take into account the possibility of adverse cardiac events in the intra- postop period and the long term as well. Cardiovascular morbidity and mortality is always talked about in hormonal therapy. On this background, this study is an eye-opener. The authors have authentically proved that there is no increased cardiovascular mortality in these patients irrespective of the line of treatment. Satariano et al first coined this kind of thought in 1998. There were no studies after this and I think the authors have successfully put this issue in the right perspective. This information though cannot be taken as the ‘final word’ on the issue of cardiac mortality in prostate cancer patients, it is certainly useful in understanding the fact that as believed in the past there is no increased mortality due to cardiac events. It’s good information to use at the time of counseling the patients and certainly useful for the patients in decision-making.

REFERENCE

1. Satariano WA, Ragland KE, Van Den Eeden SK. Cause of death in men diagnosed with prostate carcinoma. Cancer 1998;83:1180-8.