

The Impact of Low Free Testosterone on Prostate Cancer Risk and Recurrence: Testosterone Replacement after Radical Prostatectomy

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Introduction

- Historically, high serum testosterone was feared to exacerbate PCa.
- However, Pca is also well-known for its sensitivity to metabolic syndrome – a relationship perhaps aided by testosterone.
- We seek to evaluate the impact of low free testosterone on Pca risk and to assess its role in disease recurrence post-RARP.

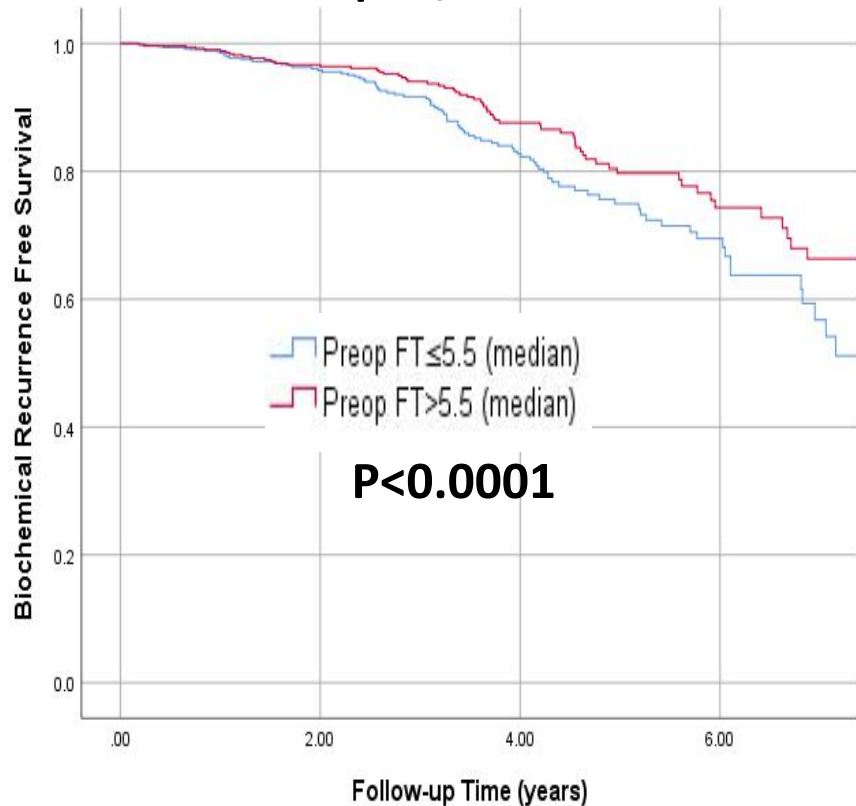
Materials and Methods

- 830 RP patients had prospectively-drawn total testosterone (TT), sex hormone binding globulin (SHBG), and calculated free testosterone (cFT).
- Logistic regression was used to assess impact of cFT on GGG, pathologic stage, and biochemical recurrence.
- A subset of 152 post-RP hypogonadal men were placed on testosterone replacement therapy after confirmation of NED. Oncologic outcomes were compared to 419 risk-matched controls.

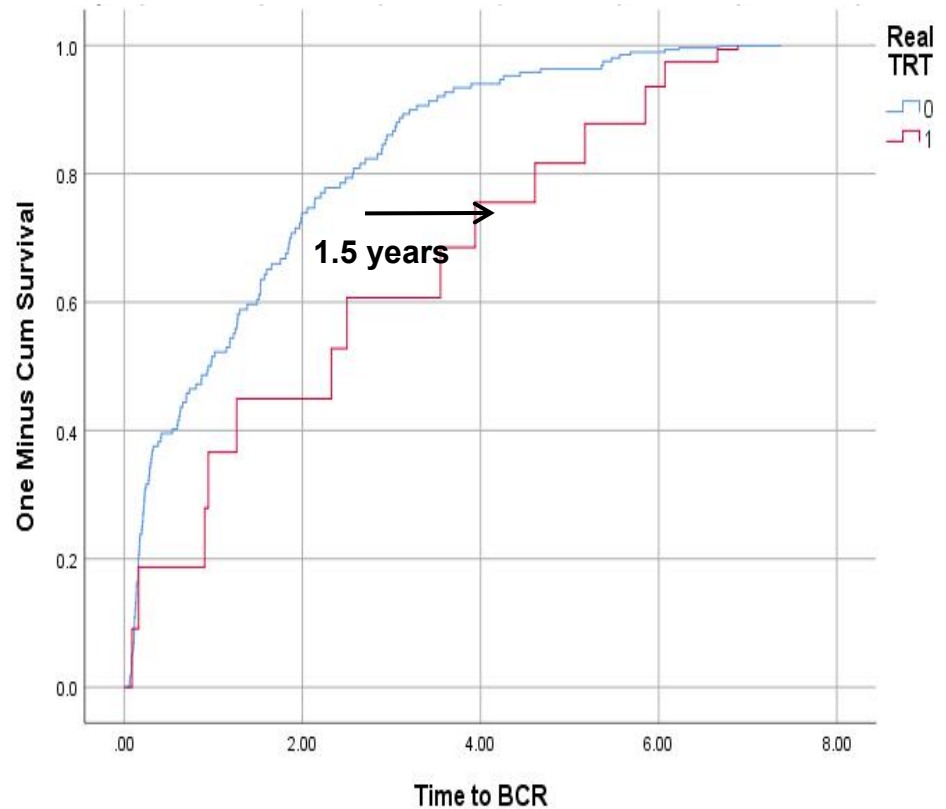


Results

- Low endogenous cFT predicted GGG 9-10, pT3/T4, and recurrence.



- Testosterone replacement was protective against recurrence.



- These findings suggest the need for well-designed, prospective and multi-centered trials assessing the potential benefit of testosterone replacement in PCa patients.