CAN TESTOSTERONE BE SAFELY GIVEN TO MEN WITH PROSTATE CANCER?

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T and **Prostate** Cancer

Meta-analysis of 19 placebo-controlled T therapy studies in men with low or low-nl T
Comparison of men treated with T vs placebo revealed no difference in:

■ PCa

- PSA>4.0 ng/ml
- Urinary symptom scores

Calof et al, J Gerontology 2005;60A:1451-7

TESTOSTERONE THERAPY AFTER RP

103 men received TTh after RP

26 high risk (Gleason 8-10, +margins, + nodes)

Comparison group: 49 men with normal T

15 high risk

Median f/u 27 mo

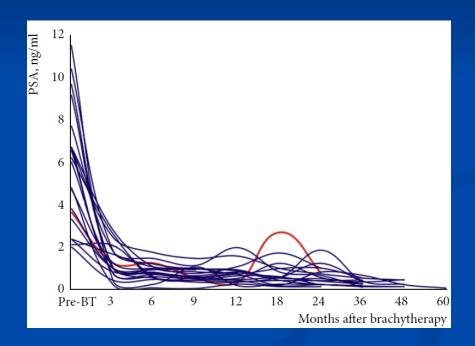
Biochemical recurrence:

4 cases (4%) in men on T 8 cases (16%) in men without T

Pastuszak et al, J Urol 2013

T THERAPY AFTER BRACHYTHERAPY Balbontin et al BJUI 2014; 114:125

- 20 men treated with brachytherapy
- Gleason 5-8
- T therapy for symptoms
- Median follow-up 31 mo
- SHIM improved 16 to 22 (p=.002)
- No cases of progression or mets

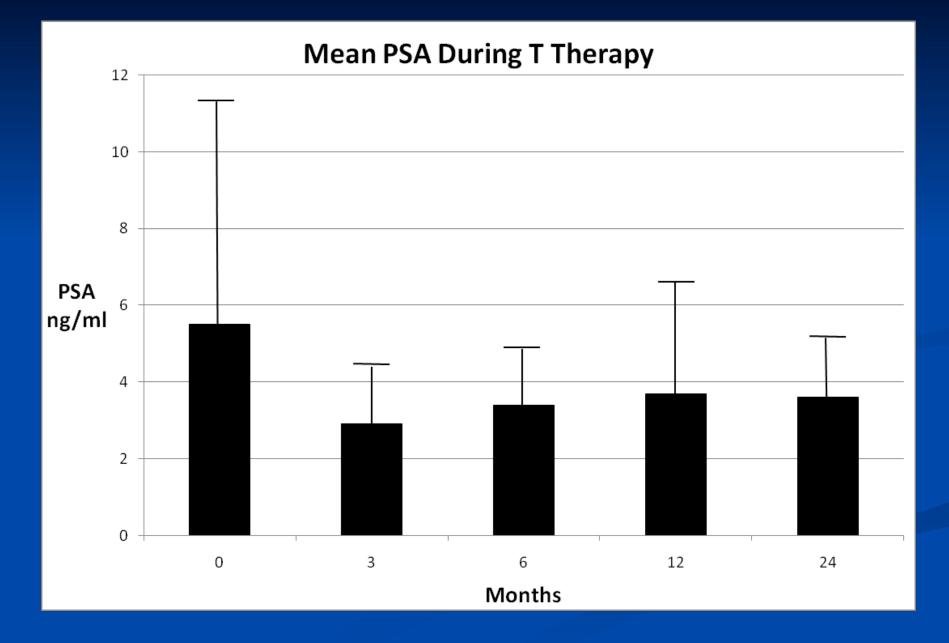


T THERAPY IN MEN WITH UNTREATED PCa

T therapy in 13 men with untreated PCa (surveillance)

Median duration T therapy 2.5y (1-8y)
All with follow-up biopsies (avg 2/person)

Morgentaler et al, J Urol 2011

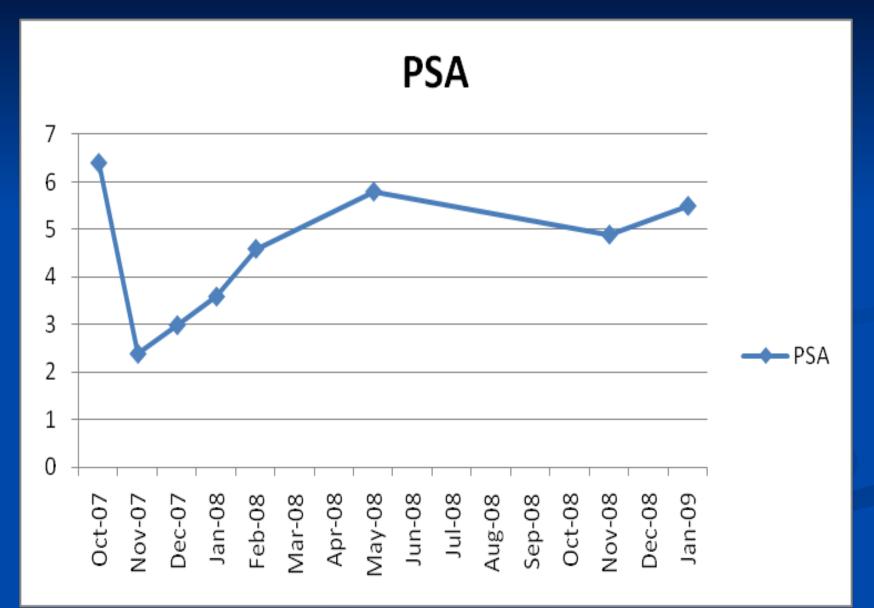


T THERAPY IN MEN WITH UNTREATED PCa

All men experienced symptomatic benefit
No increase in PSA
No increase in prostate volume
No definite cancer progression
54% of biopsies- no cancer seen

Morgentaler et al, J Urol 2011

Patient F.B.



T THERAPY IN MEN WITH UNTREATED PCa

- T therapy in 28 men on active surveillance
- Gleason 6 in 22, Gleason (3+4) in 6
- Comparison with 96 men with low T on active surveillance
- No difference in progression rates between groups (10.3% T vs 9.4% no-T)
 PSA did not increase with T therapy
 Kacker et al, Asian J Androl 2016, 18:16

Imagine

2 brothers, identical twins, age 60

- Both s/p radical prostatectomy for Gleason 6 PCa
- PSA <0.1 ng/ml at 12 months
- Brother #1 happy, sexually active, T 600
- Brother #2 tired, absent libido, T 250
- Brother #2 requests T therapy

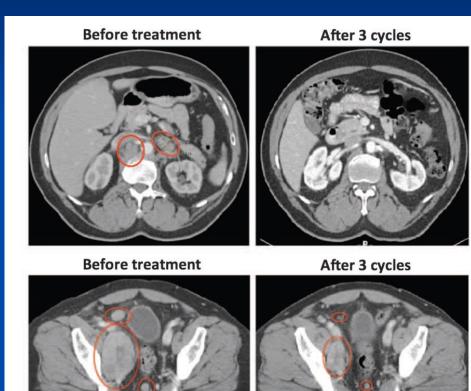
Physician: "I can't give you T. It's dangerous."
Brother #2: "What will happen?"
Physician: "It will make your cancer come back"
Brother #2: "Why is it alright for my brother to have T 600 but not me?"

Physician: "I can't give you T. It's dangerous." Brother #2: "What will happen?" Physician: "It will make your cancer come back" Brother #2: "Why is it alright for my brother to have T 600 but not me?" Physician: "Ummm...." Brother #2: "Doctor, if you believe a normal T level is dangerous, I want you to lower my brother's T so he feels as lousy as I do"

Our traditional unwillingness to offer T therapy to Brother #2 is illogical and unreasonable

T THERAPY FOR METASTATIC PCa?

Bipolar" T therapy ■ 16 men with metastatic castrate-resistant PCa ■ High dose (400mg) T given IM q 4 wks LHRH agonist ■ PSA declined in 50% $\mathbf{=}$ 5/10 showed reduction in nodal mass



Schweizer et al, J Transl Med 2015

Why do we still fear T?

"It is worthy of remark that a belief constantly inculcated during the early years of life, while the brain is impressible, appears to acquire almost the nature of an instinct; and the very essence of an instinct is that it is followed independently of reason."

Charles Darwin, in "The Descent of Man" (1871)