

**SURVIVAL RATE IN BLIND PATIENTS WITH PROSTATE CANCER FOLLOWING CURATIVE-INTENT TREATMENT**

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**Objective:** Melatonin acts as an important mediator of circadian rhythms and may also have oncostatic effects. Patients with total visual impairment (TVI - no light perception) have chronically elevated levels of melatonin. We aimed to compare the 10-year survival rate in TVI patients given curative-intent treatment for prostate cancer versus that in similar unselected patients. We hypothesized that individuals with TVI would have the same survival rate as those without TVI.

**Methods:** A nationwide study was conducted of all veterans with TVI who subsequently developed prostate cancer and had curative-intent treatment. The Department of Veterans Affairs Patient Treatment File was used to extract data for fiscal years 1994-2003. The survival rate of evaluable subjects was compared to published data on unselected patients with prostate cancer who received curative-intent therapy.

**Results:** There were 106 patients identified with ICD-9-CM codes for both TVI and prostate cancer; 8 were deemed evaluable after applying predetermined criteria. All evaluable patients had TNM stage II tumors and Gleason scores of  $\leq 6$ . The 10-year survival rate (75%) in our series of low-risk prostate cancer patients with TVI was high compared to that (59%) of unselected prostate cancer patients with similar TNM stages and Gleason scores who were treated with radiation (Int. J. Rad. Onc. Biol. Phys. 47: 609-615, 2000) and similar to that (73%) of surgically treated patients (NEJM 352: 1977-1984, 2005).

**Conclusions:** This is the first study on this topic, to our knowledge. It suggests that the outcomes of curative-intent treatment in TVI patients with low-risk prostate cancer are as good as, and possibly better, than those reported in historical controls. Due to the small number of evaluable patients, further investigation utilizing populations containing more subjects with TVI is warranted.