

Preliminary results from SIESTA, a pilot observational study investigating sleep quality in prostate cancer patients

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Introduction & Objectives: Sleep disorders have been reported to be caused by prostate cancer (PC) treatments mainly associated with androgen deprivation therapy (ADT). Trials in that field are scarce, mostly lacking objective measurements. The main aim of the study is to verify the effect of ADT on sleep compared to other treatments.

Materials & Methods: SIESTA is a pilot, observational cohort study, planned to enrol thirty patients with localised, or metastatic PC divided into 3 groups: ADT plus novel hormonal therapy (NHT), ADT plus radiotherapy (RT) or RT alone. Sleep quality measurements consist of home polysomnography (PSG) and salivary melatonin dosage, actigraphy, validated sleep and quality of life questionnaires, blood and urine samples. Preliminary results of 16 patients are presented.

Results: We report an important rate of screen failures (19%) due to severe sleep apnoea syndrome (SAS). Subjective sleep quality at baseline was impaired in 56.3% of patients. PSG and actigraphic parameters did not differ from baseline at the planned time points. One patient developed a transient restless legs syndrome (RLS) between 3 and 12 months of ADT plus RT, another patient a worsening and persistence of RLS symptoms after 6 months of ADT and Enzalutamide. The mean dim-light melatonin onset (DLMO) shift (n=7) was 67.6 ± 57.2 minutes. In all patients DLMO was anticipated, importantly in patients receiving RT alone or plus ADT ($p = 0.02$).

Conclusions: Preliminary data of SIESTA show a high percentage of pre-existing severe SAS in PCa patients. ADT seems not to affect significantly sleep quality. However, a possible effect of ADT in inducing or worsening RLS need to be better explored. An anticipation of the DLMO in patients under radiotherapy was evident.