



Effects of Oral Treatment (60 Days) With D-004, a Lipid Extract From *Roystonea regia* Fruits, on Rat Prostate Hyperplasia and Oxidative Markers

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SUMMARY. Short-term (14 days) treatment with D-004, a lipid extract from *Roystonea regia* fruits, has been shown to prevent testosterone (T)-induced prostate hyperplasia (PH) and increased oxidative stress in rat prostate, but no study has documented if such effects persist after longer treatment. This study investigated the persistence of the effects of D-004 orally given for 60 days for preventing prostate enlargement and increase of oxidative markers in rats with T-induced PH. Rats were randomized into three groups: a negative control and two T-injected that received orally vehicle (positive control) or D-004 (400 mg/kg/day), respectively. Prostate weights of positive controls significantly and markedly increased over the time, while persistent and significant reductions of such increases were seen in D-004-treated rats. Also, D-004 significantly reduced the T-induced increase of prostate conjugated diene generation and sulphhydryl groups concentrations, achieving a complete reduction from the day 30 after starting the treatment. Concluding, the effects of oral treatment with D-004 (400 mg/kg/day) on T-induced prostate enlargement and increased prostate oxidative markers persisted over 60 days of treatment.

KEY WORDS: D-004, Prostatic hyperplasia, Oxidative markers, *Roystonea regia*, Testosterone

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