Testosterone deficiency and apathy in Parkinson's disease: a pilot study.

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Author Affiliation:
Department of Psychiatry and Human Behavior, Brown Medical School, University of Pittsburgh, PA 15260, USA. rready@ucsur.pitt.edu

Authors:
Ready RE; Friedman J; Grace J; Fernandez H

Abstract:
BACKGROUND: Low **testosterone** in men with **Parkinson's disease** may be associated with non-motor symptoms of the disease, such as apathy. OBJECTIVE: To determine the association between free serum **testosterone** level and apathy in elderly men with **Parkinson's disease**. METHODS: Consecutive non-demented patients (n = 49) and knowledgeable informants (n = 40) participated in the study. Patients and informants reported on apathy using the Frontal Systems Behavior Scale and two visual analogue scales. Patients also provided self reported symptoms of depression on the Beck depression inventory-II. Blood samples were drawn at the time of assessment to determine **testosterone** levels. RESULTS: A low total **testosterone** concentration was found in 46.9% of the patients, defined as < or = 325 ng/dl. Free testosterone was significantly correlated with both patient reported and informant reported apathy, independent of disease severity. CONCLUSIONS: Apathy is common in Parkinson's disease and is inversely correlated with free testosterone. Testosterone replacement therapy could be considered as a potential treatment for apathy in some men with Parkinson's disease. More research is needed to replicate these findings and to investigate the response to treatment.

Major Subjects:

- Mood Disorders / * etiology
- Motivation
- **Parkinson Disease** / complications / * psychology
- **Testosterone** / * deficiency / therapeutic use

Additional Subjects:

- Adult
- Affect
- Aged
- Aged, 80 and over
- Humans
- Male
- Middle Aged
- Psychiatric Status Rating Scales
- Research Support, U.S. Gov't, P.H.S.

Chemical Compound Name:
58-22-0(**Testosterone**)

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