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Adherence to an Organic Diet is Protective Against Hypogonadism and Erectile Dysfunction

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Introduction: There is increasing evidence supporting relationships between diet, hypogonadism, erectile dysfunction (ED) and lower urinary tract symptoms (LUTS).

Objective: We sought to assess the dietary patterns of patients presenting to a men's health clinic and to look for any correlations between dietary habits and signs and symptoms of hypogonadism and ED.

Methods: Men who presented to our men's health clinic between August 2018 and June 2019 were enrolled. Clinical demographics were collected and patients completed the Androgen Deficiency in the Aging Male (ADAM), the International Index of Erectile Function (IIEF-5), STOP-BANG questionnaire screens for obstructive sleep apnea (OSA), Patient Health Questionnaire-9 (PHQ-9) and Generalized Anxiety Disorder 7-item (GAD-7) questionnaires, as well as an expansive dietary survey. This included questions about consumption of water, coffee, sugary drinks, drinks with artificial sweeteners, alcoholic drinks, as well as dietary preferences such as organic diet, processed foods and intermittent fasting, amongst others. Laboratory values including total testosterone (TT), free testosterone (FT) and estradiol (E) were also collected. Univariate and multivariate analyses were constructed to identify demographics and dietary habits that were predictive of hypogonadism or ED. In this study, men were included if they answered all the questionnaires and were excluded if they received testosterone replacement therapy.

Results: During this period, 445 men presented to the clinic, of which 297 were included. Organic diet was followed by 30 (10.1%) men, 52 (19.4%) did not consume processed foods and 31 (11.7%) performed intermittent fasting. On univariate analysis, organic diet was significantly associated with higher SHIM scores 19.1±5.9 vs 16.4±7.9 ($p= 0.03$). Hypogonadism and ED were diagnosed in 3.3% and 33.3% in men who followed an organic diet vs 15.7% and 41.9% in men who were not ($p= 0.069$ and $p= 0.366$, respectively). After adjusting for age and BMI, adherence to organic diet was not statistically significant with SHIM scores ($p= 0.087$). In men who performed intermittent fasting, hypogonadism, ED and LUTS were diagnosed in 6.5%, 29.0% and 19.4% vs 15.5%, 41.4% and 31.9% in men who did not ($p= 0.178$, $p= 0.187$ and $p= 0.154$ respectively). Men who consumed processed foods were younger ($p= 0.05$) and had higher body mass index (BMI) ($p= 0.033$). No other dietary associations were noted.

Conclusions: This is the first reported study showing that adherence to an organic diet may potentially be protective against hypogonadism and ED. Larger prospective interventional studies are needed to validate these results.