



CAUSAL RELATIONSHIP BETWEEN OBESITY, LIFESTYLE FACTORS AND RISK OF BENIGN PROSTATIC HYPERPLASIA: A UNIVARIABLE AND MULTIVARIABLE MENDELIAN RANDOMIZATION STUDY.

Wang, YB ; Yang, L ; Deng, YQ ; Yan, SY ; Luo, LS ; Chen, P ; Zeng, XT
Journal of translational medicine. 2022;20(1):495

Benign prostatic hyperplasia (BPH) is a common benign disease in middle-aged and elderly men which is often underestimated and underdiagnosed. If patients are not treated in time, it may lead to serious complications, such as urinary retention, renal insufficiency and renal failure. The aim of this study was to evaluate the possible causal associations of abdominal obesity (measured as waist circumference), overall obesity (measured as body mass index), lifestyle factors (dietary habits, smoking, alcohol drinking, and sedentary behaviour) with risk of BPH. This study is a univariable and multivariable mendelian randomised study. Results show that genetic predisposition to higher waist circumference and sedentary behaviour are independently and causally associated with the risk of BPH. However, there isn't conclusive evidence that genetic predisposition to relative carbohydrate, fat, protein, and sugar intake, smoking and alcohol drinking are causally associated with the risk of BPH. Authors conclude that further studies are needed to identify comprehensive risk factors on BPH and develop freely accessible prediction models for the BPH. These will help to identify individuals at particular risk and provide decision-making supports for individualised intervention.

SYSTEMATIC REVIEW AND META-ANALYSIS OF CANDIDATE GENE ASSOCIATION STUDIES OF BENIGN PROSTATE HYPERPLASIA.

Lin, L ; Li, P ; Liu, X ; Xie, X ; Liu, L ; Singh, AK ; Singh, HN
Systematic reviews. 2022;11(1):60

Benign prostatic hyperplasia (BPH) is a non-malignant enlargement of the prostate which can cause urinary dysfunction and may affect the quality of life of patients. Polymorphism in several genes has been linked to the high susceptibility of BPH.

The aim of this study was to analyse genetic variations in important genes towards the susceptibility of BPH. This study is a systematic review and meta-analysis of twenty-three case-control studies (11 for CYP17 [gene], 10 for VDR - vitamin D receptor [a member of the steroid/ thyroid hormone receptor family] and 4 for ACE - angiotensin-converting enzyme [component of the renin-angiotensin system] polymorphisms). The sample size in each study ranged from 20 to 588 participants. Results show that genetic polymorphism in the ACE gene was significantly associated with the risk of BPH when compared with control subjects. Whereas there was a negative association for the polymorphism located in VDR and CYP17 genes with the risk of BPH. Authors conclude that larger studies with prospective data and larger sample sizes are required.



IMPACT OF DIABETES MELLITUS ON LOWER URINARY TRACT SYMPTOMS IN BENIGN PROSTATIC HYPERPLASIA PATIENTS: A META-ANALYSIS.

Xin, C ; Fan, H ; Xie, J ; Hu, J ; Sun, X ; Liu, Q
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Benign prostatic hyperplasia (BPH) is a disease that causes lower urinary tract symptoms (LUTS). Age, sex hormones, diet, diabetes, obesity, and genetic factors are closely related to the occurrence of BPH.

The aim of this study was to investigate the impact of diabetes mellitus on LUTS in BPH patients. This study is a systematic review and meta-analysis of eighteen articles consisting of 1685 cases and 4653 controls.

Results show that the International Prostate Symptom Score of the diabetic BPH group was significantly higher than that of the non-diabetic BPH group, indicating that diabetes mellitus may aggravate the LUTS of BPH patients. Authors conclude that LUTS in BPH patients is increased in patients with diabetes mellitus compared with controls.



TESTOSTERONE DOES NOT AFFECT LOWER URINARY TRACT SYMPTOMS WHILE IMPROVING MARKERS OF PROSTATITIS IN MEN WITH BENIGN PROSTATIC HYPERPLASIA: A RANDOMIZED CLINICAL TRIAL.



TESTOSTERONE DOES NOT AFFECT LOWER URINARY TRACT SYMPTOMS WHILE IMPROVING MARKERS OF PROSTATITIS IN MEN WITH BENIGN PROSTATIC HYPERPLASIA: A RANDOMIZED CLINICAL TRIAL.

Rastrelli, G ; Cipriani, S ; Lotti, F ; Cellai, I ; et al.
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Benign prostatic hyperplasia (BPH) — also called benign prostate enlargement — is frequent in aging populations, with a 40 – 50% prevalence in men aged 50–60 years and up to 90% in men older than 80 years. The aim of this study was to verify whether testosterone therapy (TTh) in men with BPH, metabolic syndrome (MetS) and low testosterone is able to improve lower urinary tract symptoms (LUTS) and intraprostatic inflammation. This study is a double blind, randomised 24-week clinical trial in men with low testosterone and MetS and a candidate for prostate surgery for BPH. Patients (n=144) were centrally randomised 1:1 to one of the two groups; TTh or placebo.

Results show that TTh administered for 24 weeks is a safe option and it improves prostatic inflammatory features thus ameliorating one of the pathogenic components of BPH. However, there were no differences in improvements of the urinary symptoms between both groups (TTh and placebo).

Authors conclude that decreased inflammation is not accompanied by a consistent improvement in urinary symptoms, and that their findings show the safety of TTh in subjects with BPH of surgical significance.

