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The Effect of Physical Activity on Varicocele Pain and Resolution of the Pain by Different Varicocelectomy Techniques

Ebiloglu T¹, Aydogmus Y¹, Kaya E², Oral E¹, Kaplan O¹, Kibar Y²

¹Etimesgut Military Hospital, Ankara, Turkey;

²Gulhane Military Medical Academy, Ankara, Turkey

Introduction and Objective: To evaluate the effect of physical activity on varicocele pain and how different varicocelectomy techniques cure this pain. The effect of physical activity on varicocele pain and the effects of different surgical techniques on pain resolution haven't been evaluated yet.

Materials and Methods: Between November 2012 and January 2015, a total of 64 patients with left groin pain and clinical varicocele enrolled in this study. A visual analogue scale (VAS) classifying the pain in ten scores was used to assess the severity of pain before and after beginning of continuous physical activity, and after operations. Patients were randomly divided into 3 groups. Group 1 had open sub-inguinal varicocelectomy, Group 2 had loupe assistant sub-inguinal varicocelectomy, Group 3 had microscope assistant sub-inguinal varicocelectomy.

Results: The mean VAS score of patients before and after beginning of continuous physical activity was 3.10 ± 0.9, and 7.65 ± 0.93, respectively (p=0.001). It was 3.36 ± 0.9, and 7.45 ± 0.82 in Group 1 (p=0.001); 2.90 ± 0.83, and 7.54 ± 1.29 in Group 2; 3.06 ± 1.06, and 7.87 ± 0.71 in Group 3 (p=0.001). After the operations the mean VAS score decreased to 1.90 ± 1.13 in Group 1 (p=0.002), 1.63 ± 1.32 in Group 2 (p=0.003), and 0.81 ± 0.71 in Group 3 (p=0.001), respectively. Comparing the postoperative results among the groups: there was no statistically significance between group 1 and 2 (p=0.19), and group 2 and 3 (p=0.378), but there were significantly difference between group 1 and 3 (p=0.011) (Table 1).

Conclusions: Physical activity has a significant worsening effect of varicocele pain. Microscopic sub-inguinal varicocelectomy offers the best results on pain resolution.

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Can Testosterone Level Be a Good Predictor of Late-Onset Hypogonadism?

Heydari R¹, Sajadi H¹, Pourmand A², Pourmand G¹

¹Urology Research Center, Sina Hospital, Tehran University of Medical Sciences, Tehran, Iran; ²Dept. of Emergency Medicine, George Washington University, Washington, USA

Introduction and Objective: Androgens are essential for the development and growth of the genitalia. They regulate the erectile physiology by multiple mechanisms. Several studies have examined associations among sex hormones' serum levels, erectile function and sex drive. We sought to identify a protocol for using testosterone in men with erectile dysfunction and late-onset hypogonadism (LOH).

Materials and Methods: During a 16-month period, men with erectile dysfunction who presented to the andrology clinic were selected. They underwent a complete physical examination and filled out the International Index of Erectile Function-5 questionnaire. Serum luteinizing hormone (LH) and testosterone levels were evaluated. Patients received a single intramuscular injection of 250 mg testosterone. Thereafter, serum levels of LH and testosterone were measured 3 weeks later.

Results: The mean age was 53 years old. After treating patients with testosterone, 45 (94%) showed improvement in LOH symptoms including libido, loss of energy, irritability and quality of life. The mean International Index of Erectile Function was 9 and 13.1, prior to and after treatment respectively. Mean serum testosterone levels before and after treatment were 4.2 and 4.1 ng ml⁻¹ respectively (P = 0.849). Mean serum LH revealed a significant decrease after the study (P = 0.004) (6.12 and 5.1 ng ml⁻¹, before and after the study respectively).

Conclusion: Our findings suggested that testosterone replacement therapy improves libido and LOH symptoms in individuals with almost normal or lower limit normal value of serum testosterone levels.

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Does L-Carnitine Therapy Add Any Extra Benefit to Standard Inguinal Varicocelectomy in Terms of Deoxyribonucleic Acid Damage or Sperm Quality Factor Indices: A Randomized Study

Pourmand G¹, Movahedin M², Dehghani S¹, Mehraei A¹, Ahmadi A³, Pourhosein M¹, Hoseini M³, Ziloochi M³, Heidari F¹, Beladi L¹, Noori M¹

¹Urology Research Center, Tehran University of Medical Sciences, Tehran, Iran; ²Dept. of Anatomical Sciences, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran; ³Research and Development Center, Sina Hospital, Tehran University of Medical Sciences, Tehran, Iran

Introduction and Objective: To evaluate if addition of L-carnitine therapy to standard varicocelectomy adds any extra benefit in terms of improvement in semen parameters or deoxyribonucleic acid (DNA) damage.

Materials and Methods: One hundred patients enrolled in this study and were randomly divided into 2 groups (50 patients in each group). In Group 1, standard inguinal varicocelectomy and, in Group 2, standard inguinal varicocelectomy plus oral antioxidant therapy (oral L-carnitine, 250 mg 3 times a day) were performed for 6 months. For all patients, routine semen analysis and DNA damage test of spermatozoa (by 2 methods of terminal deoxynucleotidyl transferase dUTP nick end labeling and protamine damage assay) were performed at baseline and at 3 and 6 months postoperatively.

Results: In both groups, the improvement in semen analysis parameters and DNA damage was observed, but there was not any statistically significant difference between the 2 groups in these parameters, although the slope of improvement in DNA damage was slightly better in Group 2 (that was not statistically significant).

Conclusion: We observed that addition of 750 mg of L-carnitine orally daily to standard inguinal varicocelectomy does not add any extra benefit in terms of improvement in semen analysis parameters or DNA damage.

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Serum Uric Acid as a Risk Predictor for Erectile Dysfunction

Salem S^{1,2}, Mehraei A³, Heydari R³, Pourmand G³

¹Urology Institute, University Hospitals Case Medical Center, Cleveland, USA; ²Dept. of Urology, Case Western Reserve University, Cleveland, USA; ³Urology Research Center, Tehran University of Medical Sciences, Tehran, Iran

Introduction and Objective: Serum uric acid (UA) is now beginning to be considered a risk predictor for cardiovascular diseases. However, little is known about the effect of hyperuricemia on the risk of developing other systemic vascular disorders, especially erectile dysfunction (ED). Our aim is to evaluate whether serum UA is a predicting factor for ED while adjusting for other common risk factors.

Materials and Methods: Two hundred fifty-one patients aged 45.2 ± 10.1 years with newly diagnosed and documented ED and 252 age-matched participants without ED (aged 45.1 ± 8.4 years) were enrolled in this case-control study. Univariate and multivariate logistic regression analysis were performed to assess the effect of serum UA on ED; odds ratio (OR) and 95% confidence interval (CI) were calculated. Adjustments were made for potential confounding factors, including obesity, hypertension, diabetes, dyslipidemia, serum triglyceride, and smoking.

Results: Serum UA concentration and the distribution of potential ED risk factors (age, smoking, lipid profile, hypertension, obesity, and diabetes mellitus) were evaluated. Serum UA levels were organized into tertiles. The five-item International Index of Erectile Function was used to evaluate the presence and the severity of ED. The mean serum UA levels in ED-positive and ED-negative groups were 6.12 ± 1.55 mg/dL and 4.97 ± 1.09 mg/dL, respectively (P < 0.001). On analysis of unadjusted variables, statistically significant differences were found for all variables, including serum UA, between ED-positive and ED-negative

UP.216, Table 1. VAS Scores

	Before Activity	After Activity	After Surgery	p
Group 1	3.10 ± 0.90 (2-5)	7.65 ± 0.93 (4-9)	1.90 ± 1.13 (0-4)	0.002
Group 2	2.90 ± 0.83 (2-4)	7.54 ± 1.29 (4-9)	1.63 ± 1.32 (0-7)	0.003
Group 3	3.06 ± 1.06 (2-5)	7.87 ± 0.71 (7-9)	0.81 ± 0.71 (0-3)	0.001