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THE COMPARISON OF POST-OPERATIVE ERECTILE FUNCTION AFTER RADICAL NEPHRECTOMY AND PARTIAL NEPHRECTOMY



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Objectives: Erectile dysfunction (ED) is prevalent in patients with Chronic Kidney Disease (CKD), and has been associated with impaired quality of life (QOL). Despite a number of studies indicate that partial nephrectomy (PN) outperforms radical nephrectomy (RN), the impact of each procedure on ED is unclear. The aim of this study is to clarify whether PN can decrease the risk of post-operative ED compared to RN.

Material and Methods: This was a retrospective study including 117 male patients (72 RN/45 PN, mean age 68.9 years, mean follow-up 4.3 years) who underwent surgery for renal tumors between 2005 and 2012. The primary outcome was post-operative erectile function between PN and RN. Secondary outcomes included development of CKD, relationship between QOL and ED and other risk factors of ED such as age, body mass index and comorbidities. Erectile function was evaluated by International Index of Erectile Function (IIEF-5) and ED was defined as IIEF-5 score < 8. QOL was evaluated by SF36v-2. Multivariate analysis was performed to determine the risk factors for post-operative ED. **Results:** RN and PN groups had similar demographics and comorbidities. No differences were observed for pre-operative CKD, hyperlipidemia and diabetes mellitus. Post-operatively, eGFR (41.93 vs 58.15 ml/min/1.73m², $p < 0.05$) and IIEF-5 score (7.86 vs 13.93, $p < 0.01$) were both deteriorated in RN compared to PN groups, respectively. Operative method (RN vs PN) and the presence of post-operative ED (IIEF-5 score < 8 vs IIEF-5 score > 8) were associated with post-operative QOL. Multivariate analysis demonstrated that post-operative ED was associated with RN (Hazard ratio 3.309, $P = 0.0302$) and age (Hazard ratio 2.632, $P = 0.0453$).

Conclusions: RN group had significantly lower post-operative IIEF-5 score compared to PN group. Post-operative ED was also associated with post-operative QOL. Further investigation on the effects of surgically induced nephron loss on ED is required.

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BIOCHEMICAL HYPOGONADISM IN CHRONIC SPINAL CORD INJURED MALES SUFFERING FROM ERECTILE DYSFUNCTION



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Background: Identification of testosterone deficiency as a treatable co-morbidity is important in males with chronic SCI. Some

studies have reported high prevalence of testosterone deficiency in this group. However, due to inadequate sample size and methodological concordance, it is still controversial. This study was aimed to evaluate the prevalence of hypogonadism in chronic spinal cord injury patients suffering from ED and its correlates.

Method and Materials: A cross sectional prospective study carried out in Iran. 319 men with SCI for at least 2 years suffering from ED visiting an Andrologist were examined for testosterone profile, SHBG, FSH, LH, PRL, triglyceride and cholesterol. Total testosterone levels ≤ 300 ng/dl considered as testosterone deficiency.

Results: The mean age (SD) was 47.23 years (7.51). The median duration of SCI was 26.0 years. Testosterone deficiency was detected in 32.6% of participants of those, 95.2% had low or normal LH. The median of total serum testosterone was 360ng/dl. At the univariate logistic regression analysis, smoking, SHBG, LH, cholesterol and triglycerides levels were significantly associated with risk of testosterone deficiency, but only smoking and high TG levels remained significant in multivariate model.

Conclusion: In the 2 most recent studies, the prevalence of biochemical hypogonadism in men with chronic SCI was close to that of the present study. In a large series (243 men), Bauman *et al.* (J Spinal Cord Med, 2014, 37, 32-39) reported a prevalence of 46% considering a cutoff of 11.3nmol/L, but the prevalence dropped to 27%, considering a cutoff of 10nmol/L. The mean age of participant was similar to that in the present study. In the report by Barbonetti *et al.* (Andrology, 2014, 2, 721-728) using the same cutoff of the present study (10.4nmol/L), the prevalence was 35.3%. In the Baltimore Longitudinal Study (Harman *et al.*, 2001), Testosterone deficiency was 5-28% of able-bodied men aged 20-29 years to 70-79 years. Therefore a value close to 32% here reported, was found only in much older subjects (and the cutoff in the Harman study was higher (total T < 11.3nmol/L). ED may represent a symptom of clinical hypogonadism, but not in men with SCI, in whom ED is a consequence of neurological damage. Among sexual symptoms, only lower sexual desire exhibited significant association with lower testosterone levels in the study of Barbonetti *et al.* (Andrology, 2014, 2, 721-728). The presence of testosterone deficiency is predicted to be greater in smokers and patients with high TG levels.

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CHARACTERISTICS OF SECONDARY, PRIMARY, AND COMPENSATED HYPOGONADISM IN CAUCASIAN-EUROPEAN MEN PRESENTING FOR NEW ONSET ERECTILE DYSFUNCTION — RESULTS OF A CROSS-SECTIONAL SURVEY



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