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## **Re: Erectile Dysfunction in Patients with Chronic Renal Failure**

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To the Editor:

The association of chronic renal failure (CRF) to erectile dysfunction (ED) is a well known fact, but the prevalence of ED obtained in this population is variable. The lack of a standardised instrument for ED assessment before generalisation of the international index of erectile function (IIEF) and the

heterogeneity of CRF patients regarding the presence of commorbidities are two facts that have probably contributed to this variability. However, a high prevalence of ED has generally been reported in CRF patients. In this sense, Messina and collaborators report in this issue that the prevalence of ED in a

study population of Brazilian men suffering from CRF and undergoing hemodialysis was 60.3%. This means that a large number of patients undergoing hemodialysis also complain from ED. When ED is added to the deterioration in quality of life caused by the renal failure as the need to stay several hours per day, three times a week, connected to the hemodialysis machine, the decline of the quality of life becomes harder. The prevalence reported in this study is not far from that reported by other authors in CRF patients in Brazil (1) which was 57.9%. In addition, age is a variable associated with ED in both studies. The present study, also confirms that diabetes is a main factor associated to ED in patients undergoing hemodialysis. In fact, almost all diabetic patients with CRF presented ED. Since diabetes is independently associated to ED, this could indicate that the presence of two risk factors prompts the patient to develop ED. Diabetes is related to a reduction of nitric oxide (NO)-mediated activity (2) while CRF has also been suggested to decrease NO availability (3,4). Thus, the presence of the two conditions should hardly impact the NO/cGMP pathway, a key pathway in the erection process. Due to the high proportion of hypertensive patients in this study, authors cannot evaluate the association of hypertension with ED in patients undergoing hemodialysis. However, interesting information could have been obtained by analysing the relationship between ED and the specific antihypertensive medication. A novel finding of the study by Messina and collaborators is that ED correlated with parameters of hemodialysis adequacy (Kt/V) suggesting that ED could be prevented by achieving good standards of dialysis. The lower risk for ED when urea is effectively cleared from plasma is consistent with the fact that

uraemia results in reduced bioavailability of NO (5) and the serum levels of endogenous inhibitors of NO synthase are increased in uraemic patients (6). In conclusion, the high prevalence of ED among the patients with CRF compels practitioners to ask for erectile function of these patients, in order to try to improve their quality of life. A better understanding of the specific pathophysiological mechanisms leading to ED in CRF patients could help to find the adequate treatment option.

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