

Depression and anxiety in end-stage renal disease patients under online-haemodiafiltration: A single center study

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Introduction

Dialysis is associated with high rates of depression (25% to 70%) [1] and anxiety [2]. Depression has a strong positive correlation with mortality rates and a strong negative correlation with adherence to dialysis treatment [3].

Objectives

To evaluate the prevalence of depression and anxiety in ESRD patients in association with their socio-demographic, clinical and biological data.

Methods

All patients of the NephroCare Maia Clinic (Portugal) were invited to participate in a cross-sectional study with 97 ESRD patients on online-haemodiafiltration (39.2% males; 69.86 ± 14.03 years old). Patients with cognitive impairment were excluded. After informed consent, depression and anxiety were evaluated using the Hospital Anxiety and Depression Scale (HADS, Zigmond & Snaith, 1983). Sociodemographic data as well as comorbidities, haematological data, iron status, dialysis adequacy, nutritional and inflammatory markers were collected from the patient's records.

Results

Results showed that 51% of the patients have symptoms of depression, with 30% of them being moderate or severe and a lower prevalence of anxiety (27.8% reporting mild symptoms, and 16.5% reporting moderate or severe symptoms).

Associations between the variables were different in men and women, i.e. comorbidities were significantly higher in female patients. Anxiety was associated with fluid removal levels and with high global and psychological frailty (Fig. 1A-1C). Depression was associated with a high body mass index, fat tissue mass, and high Charlson Comorbidity Index score (Fig. 1D-1F). In men, negative associations between depression and albumin serum levels and positive association between depression and frailty were observed (global, psychological and physical). Anxiety was associated with subjective physical frailty in men (Fig. 2A-2C).

Conclusion

ESRD patients presented a higher prevalence of depression as compared to anxiety, confirming previous findings [1]. Results suggested that frail ESRD patients are a particular vulnerable subgroup. The relations between depression and anxiety with clinical and treatment parameters require further investigation. Strategic options are needed to improve the diagnosis and treatment of psychological disorders.

References

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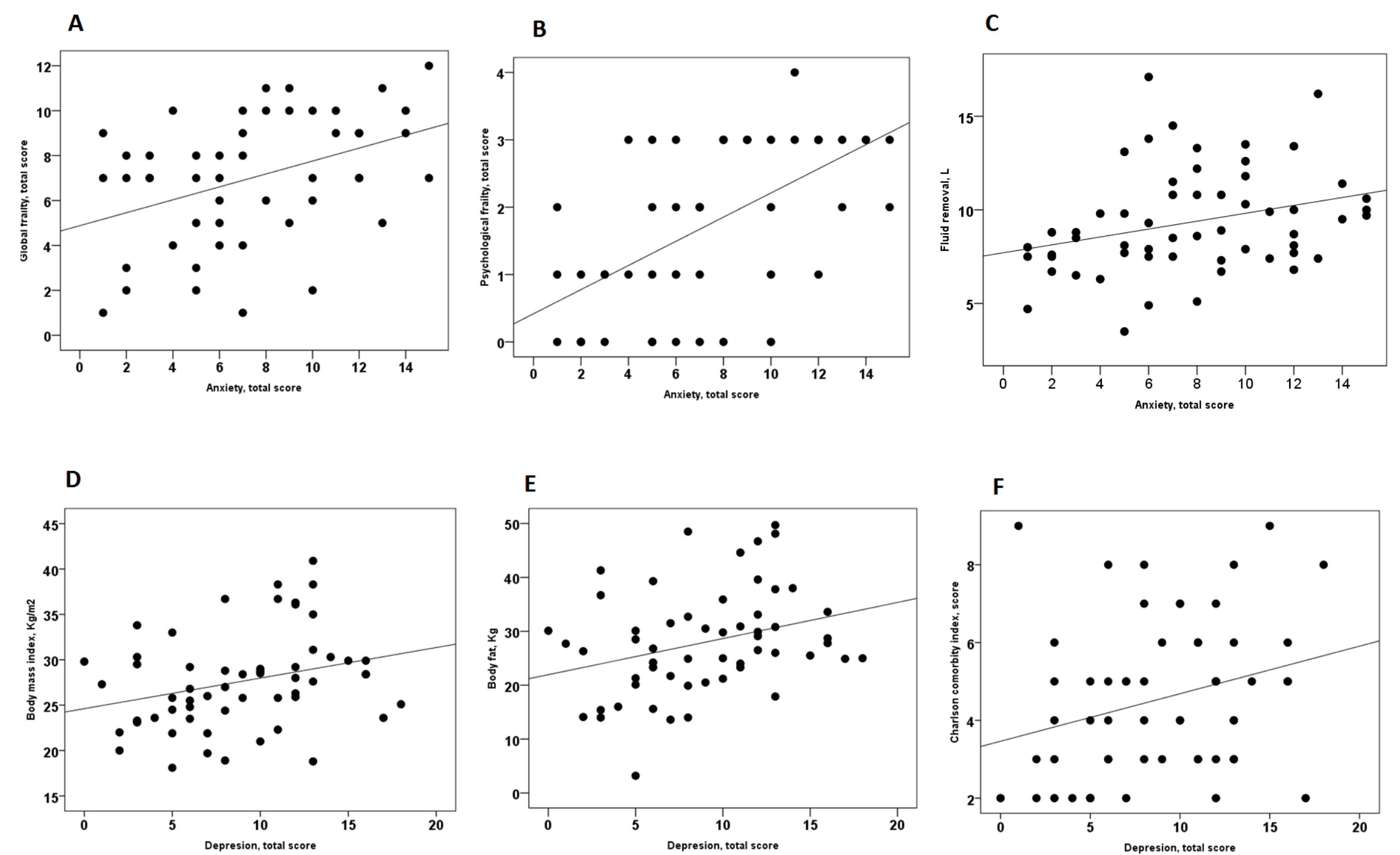


Figure 1: In female ESRD patients, an association between anxiety and comorbidities (A), psychological frailty (B) and fluid removal (C) was observed. We also found an association between depression and body mass index, body fat and comorbidities.

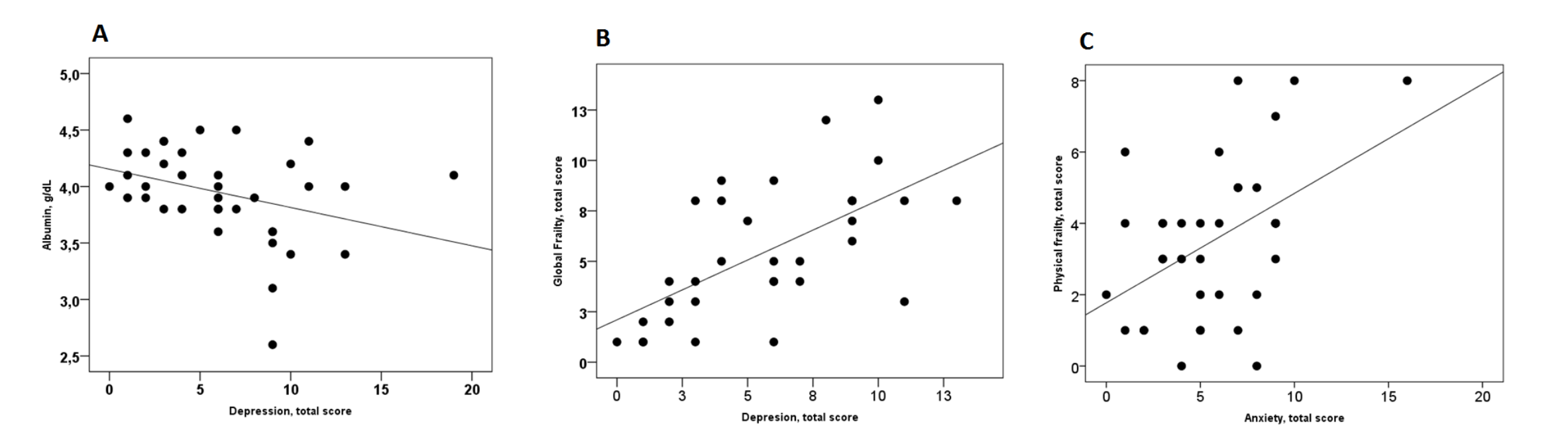


Figure 2: In male ESRD patients, an association between depression score and albumin serum levels (A), global frailty (B) and physical frailty (C) was observed.