

The dependence of compliance on the cognitive functions of patients on chronic haemodialysis.

Rumiya Arslanova¹, Irina Bastrykina¹, Pavel Ob'edkov¹, Olga Portnova², Maria Teresa Parisotto³

¹ Fresenius Medical Care, Fresenius NephroCare Dialysis Centre, Volgograd, Russia

² Fresenius Medical Care, Fresenius NephroCare department, Moscow, Russia

³ Fresenius Medical Care, Care Value Management, Bad Homburg, Germany

Introduction

Dialysis patients develop a number of neurological disorders of the central and the peripheral nervous system. The presence of neurological complications (such as strokes, cognitive disorders, encephalopathy,) affects both the severity of the disease and the mortality of CKD patients.

Objectives

To determine the association between cognitive functions and treatment compliance.

Methods

66 out of 78 patients participated in the research; data was recorded from January to October 2018. Patients were divided into 2 groups: compliant and non-compliant. Signs of non-compliance were: weight gains over 4.5% of dry weight, laboratory test data: P > 1.8 mmol / L, K > 5.5 mmol / L, Na > 140 mmol / L above target. The Montreal Cognitive Function Assessment Scale (MoCA) was used to cluster the patients.

Results

83% of non-compliant patients did not adhere to the diet (K 49%, Na 12%, interdialytic weight gains 22%). The number of patients with normal cognitive function (NCF) was 60% in the compliant group and 40% in the non-compliant group. In the non-compliant group with NCF, non-adherence to the diet was one indicator. In the patients with reduced cognitive function, non-adherence to diet was for a greater number of indicators (75% for one indicator, 25% for 2 or more indicators).

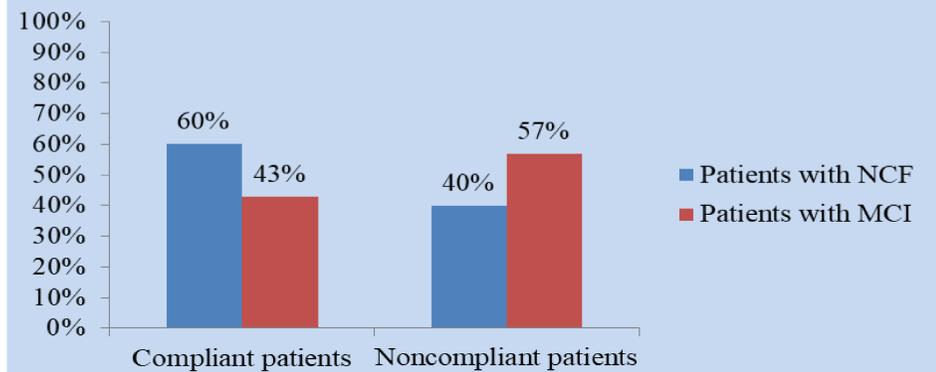
Education can impact the cognitive functions and compliance, which explains the patients understanding of medical recommendations and the importance of compliance.

Conclusion

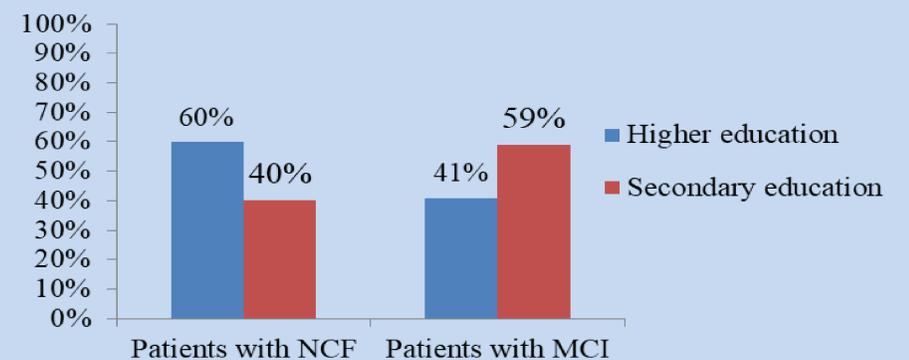
Higher preserved cognitive functions are associated with higher patient compliance, and high patient compliance is an indicator of the survival of patients on dialysis. The preservation of cognitive functions depends largely on the level of patient education.

References

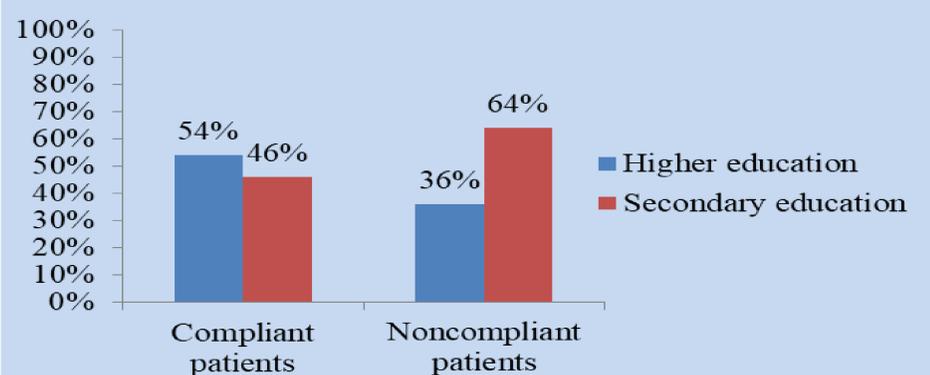
- Lu R, Kiernan MC, Murray A, Rosner MH, Ronco C. Kidney-brain crosstalk in the acute and chronic setting. *Nat Rev Nephrol* 2015; 11(12):707-719. DOI: 10.1038/nrneph.2015.131
- Griva K., Stygall J., Hankins M. et al. Cognitive impairment and 7-year mortality in dialysis patients // *Am J Kidney Dis.* – 2010. – Vol. 56. – P. 693–703.
- Odagiri G., Sugawara N., Kikuchi A. et al. Cognitive function among hemodialysis patients in Japan // *Ann Gen Psychiatry.* – 2011. – Vol. 10. – P. 20. doi: 10.1186/1744-859X-10-20.
- Nasreddine ZS, Phillips NA, Bedirian V, Charbonneau S, Whitehead V, Collin I, et al. The Montreal Cognitive Assessment, MoCA: a brief screening tool for mild cognitive impairment. *J Am Geriatr Soc* 2005;53:695-699. DOI: 10.1111/j.1532-5415.2005.53221.x
- Pereira A.A., Weiner D.E., Scott T. et al. Cognitive function in dialysis patients. *Am J Kidney Dis.* – 2005. – Vol. 45. – P. 448–462.



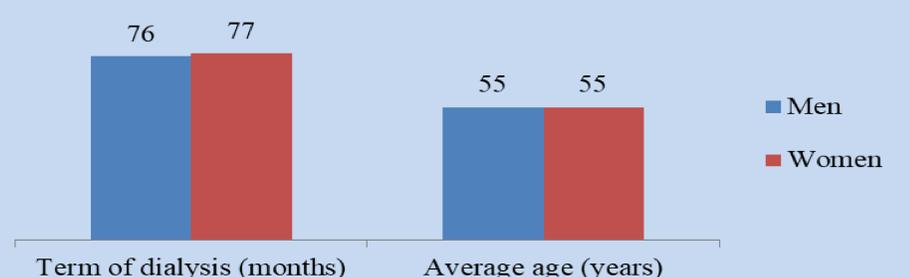
Impact of cognitive functions on patient compliance.



The impact of education on the cognitive functions of patients.



The effect of education on patient compliance.



Middle age and the dialysis experience of men and women.