Annals of General Psychiatry

BioMed Central

Poster presentation

Open Access

Frontal functioning alterations in chronic hepatitis C virus infected patients

Bruno Peixoto*[1], Laudino Lopez[2], Jorge Areias[3], Rute Cerqueira[4] and Jorge Arias[2]

Address: [1]Sciences Department; Health Sciences Superior Institute – North, Gandra, Portugal, [2]Psychology Department; Oviedo University, Oviedo, Espaρa, [3]Gastroenterology Service; Saint Antonio General Hospital, Porto, Portugal and [4]Gastroenterology Service; Saint Sebastian Hospital, Santa Maria da Feira, Portugal

* Corresponding author

from International Society on Brain and Behaviour: 3rd International Congress on Brain and Behaviour
Thessaloniki, Greece. 28 November – 2 December 2007

Published: 17 April 2008

Annals of General Psychiatry 2008, **7**(Suppl 1):S169 doi:10.1186/1744-859X-7-S1-S169

This abstract is available from: http://www.annals-general-psychiatry.com/content/7/S1/S169

Background

The neuropsychological implications of severe liver dysfunction have been widely discussed in recent neuropsychological literature. However, research has only just begun on the harmful effects of mild liver dysfunction on neurocognitive processes, as well as the direct action of the hepatitis C virus (HCV) on the central nervous system. The purpose of this study was to investigate the possible existence of alterations in the executive functions of HCV patients.

Materials and methods

The executive functions were assessed by the administration of the two tests batteries related to the frontal lobe functioning; the Behavioural Assessment of the Dysexecutive Syndrome and the Wisconsin Card Sorting Test, to a group of HCV patients (n=20) and to a control group (n= 20).

Results

The obtained results suggest the presence of impaired capability to inhibit previous associations and to use feedback in order to correct behaviour in the HCV group. Structured planning, conceptualization, organized search, attention supervision and control in non routine tasks and maintenance of a non automatic response, are other impaired aspects in these patients.

Conclusions

These results were not related to the degree of liver fibrosis, suggesting direct action of the hepatitis C virus on the frontal lobe

Acknowledgements

Cespu, crl.

References

1. Bonkovsky H.L., Woolley J.M.: **Reduction of health- related quality of life in chronic hepatitis C and improvement with interferon therapy.** *Hepatology* 1999, **29:**264-270. The Consensus Interferon Study Group
2. Cordoba J., Flaviα M., Jacas C., Sauleda S., Esteban J.I., Vargas V., Esteban R., Guardia J.: **Quality of life and cognitive function in hepatitis C at different stages of liver disease.** *Journal of Hepatology* 2003, **39:**231-238.
3. Fontana R.J., Hussain K.B., Schwartz S.M., Moyer C.A., Su G.L., Lok A.S.: **Emotional distress in chronic hepatitis C patients not receiving antiviral therapy.** *Journal of Hepatology* 2002, **36:**401-407.
4. Forton D.M., Thomas H.C., Taylor-Robinson S.D.: **Central nervous system involvement in hepatitis C virus infection Metabolic Brain Disease.** 2004, **19:**383-391.