

# Neurological Sciences



Founded by  
Renato Boeri  
Official Journal  
of the Italian  
Neurological  
Society



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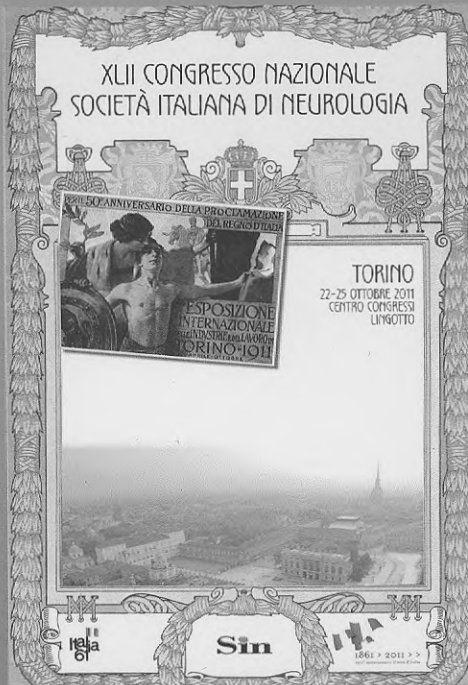
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of the Italian  
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ABSTRACTS



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# **XLII Congress of the Italian Neurological Society**

*Torino*  
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*22-25 October 2011*

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(Access), of analysis (Excell) and easy report generation (Word). CoEva include various tests for the evaluation of several cognitive skills. In particular, we developed tasks exploring manual dexterity, arousal and visual and auditory attention (with various stimuli and growing complexity), executive function (logical thinking and problem solving), procedural memory, visual memory and social cognition (1). All tasks has been administered, for evaluation, to a group of two hundred fifty healthy subjects, stratified for demographical parameters (gender, age and education). This validation allows to obtain reference scores, for judgment of single performance. Recently, we added, to the software, the first set of exercises for neuropsychological rehabilitation of executive functions (logical thinking) and language. This component is being testing in a subgroup of normal subjects to define grading and efficacy of the task. In conclusion, CoEva is a flexible test battery that can be used in different settings and is a promising platform for neuropsychological rehabilitation. In comparison with other existing products this software is competitive for ease of use, high adaptability and reliability.

**Reference:**

- Baron Cohen S et al, The "Reading the Mind in the Eyes" Test revised version: a study with normal adults, and adults with Asperger syndrome or high-functioning autism *J Child Psychol, Psychiatry Allied Disc* (2001); 42:241-51

## CORRELATION BETWEEN ANOSOGNOSIA AFTER STROKE AND LEVEL OF EDUCATION

R. Pagani, A. Previtera

Dipartimento di Medicina, Chirurgia e Odontoiatria, Università degli Studi di Milano (Milano)

**Background:** Anosognosia is relatively common following a stroke, and generally is a temporary condition in the acute and post-acute phases. There are several aetiological hypotheses regarding the anosognosia, and the pathogenesis of this phenomenon is widely debated. Anosognosia may range from a total and obstinate denial to a reluctant admission of deficits. It may occur at verbal and non-verbal levels, and may concern some specific aspects of the illness, but not of others. Anosognosia is often associated with lesions of the right hemisphere, but also it may occur after lesions in other brain locations. **Aims:** to investigate the anosognosia in all patients after first stroke and to assess a possible correlation between the degree of unawareness and the level of education.

**Materials and methods:** The most common methods to explore anosognosia are structured interviews that are prone to a bias in assessment of aphasic patients. The Visual-Analogue Test for Anosognosia for motor impairment (VATAm) is an easy tool to identify degrees of awareness of motor impairment and is suitable for assessment of patients with language deficits. We used VATAm to investigate the presence of anosognosia for motor disorder in the sub-acute phase following the first stroke in twenty-eight patients.

**Results:** The thirty-three per cent of patients showed anosognosia and half of them had not right-brain damage. We performed a non-parametric analysis (Spearman's rank correlation coefficient) in the anosognosic group. It evidenced a statistical significant inverse correlation between years of formal education and the degree of anosognosia ( $p=0,017$ ).

**Conclusions:** Our results suggest that anosognosia for motor deficits is a phenomenon that occurs frequently also following lesions that do not involve right hemisphere. A low educational level may be a predisposing factor or may lead to greater severity of anosognosia for hemiplegia following stroke. These findings suggest that the experience may play a role in this phenomenon.

**Reference:**

- Della Sala S, Cocchini G, Beschin N, Cameron A. VATA-M:

Visual-Analogue Test Assessing Anosognosia for motor impairment, *Clin Neuropsychol.* (2009) Apr;23(3):406-27. 2009 Feb 11

## COGNITIVE PROFILE OF CREUTZFELD-JAKOB DISEASE PATIENTS

C. Pagni, D. Frosini, C. Carlesi, C. Pizzanelli, M. Cosottini, I. Ghicopulos, G. Tognoni

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**Objective:** Cognitive impairment is a central feature of Creutzfeldt-Jakob disease (CJD) and constitutes a core component of clinical diagnostic criteria. The aim of this study is to investigate cognitive profile in a group of 9 patients with sporadic CJD (sCJD).

**Methods:** A retrospective study was conducted on data derived from neuropsychological evaluation of 9 patients with sCJD. All patients performed EEG, DWI MRI, tau and 14.3.3 protein level and post mortem pathological findings were available in all but one patients and were consistent with the diagnosis.

**Results:** Cognitive symptoms were the reason for medical consulting in 5 patients. All patients who performed an extensive neuropsychological battery (N=6) showed an impairment in at least one cognitive domain that, in 5 patients, concerned the executive functions. MMSE was impaired in all patients who performed it, while digit span was usually preserved. Furthermore, in all patients, DWI MRI was consistent with clinical diagnosis, 14.3.3 protein was present and TAU protein was abnormally elevated.

**Discussion:** All patients who performed an extensive neuropsychological battery showed an impairment in at least one cognitive domain that, in 5 patients, concerned the executive functions.

**Conclusions:** Cognitive impairment may represent one of the earliest features of CJD that may precede, in some cases, the onset of psychiatric or neurological symptoms. Executive functions, specifically attention, seems to be particularly involved even though there is a variability in neuropsychological profiles probably due to different disease duration at the time of evaluation.

**References:**

- Snowden JS et al. Distinct neuropsychological characteristics in Creutzfeldt-Jacob disease. *J Neurol Neurosurg Psychiatry.* (2002) Dec;73(6):686-94
- Cordery RJ et al. The neuropsychology of variant CJD: a comparative study with inherited and sporadic forms of prion disease. *J Neurol Neurosurg Psychiatry.* (2005) Mar;76(3):330-6.

## APATHY IN NON-DEPRESSED YOUNG ADULTS

M. Pardini<sup>1</sup>, S. Guida<sup>1</sup>, J. Grafman<sup>2</sup>, F. Krueger<sup>3</sup>, L. Cocito<sup>1</sup>, C. Serrati<sup>4</sup>, L. Emberti Gialloreti<sup>5</sup>

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**Objective:** To verify the prevalence, cognitive basis, and treatment options of apathy (1) in non-depressed young adults (aged 19-35 years) free from medical and psychiatric conditions (2).

**Materials and Methods:** Apathy and perceived quality of life were assessed in more than four thousands young adults free from psychiatric or medical comorbidities. Subjects with apathy and controls were compared on measures of depression, self-efficacy, social skills, behavioral inhibition, and behavioral activation. The effect of pharma-

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