

Unawareness of Motor and Somatosensory deficits after stroke (UMAS): Validity and Reliability of UMAS Questionnaire

Lucia Spinazzola¹, Giulia Bellan², Lorenzo Pia^{2,3}, Anna Berti^{2,3}

¹ Department of Rehabilitation, Azienda Ospedaliera S. Antonio Abate, Gallarate (VA)

² Department of Psychology, University of Torino

³ Neuroscience Institute of Torino (NIY)

ABSTRACT. Lo scopo principale dello studio è stato esaminare l'attendibilità e la validità del questionario UMAS. Lo strumento nasce con l'obiettivo di valutare l'anosognosia per l'emiplegia (AHP) e l'anosognosia per l'emianestesia (AHA). Il termine "anosognosia" sta ad indicare l'inconsapevolezza del paziente rispetto ad uno specifico deficit conseguente alla lesione cerebrale. Nella ricerca sono stati esaminati 30 pazienti con lesioni cerebrali nell'emisfero destro ed è stata presa in esame esclusivamente l'anosognosia per l'emiplegia e per l'emianestesia. I risultati dello studio sembrano supportare l'attendibilità e la validità del questionario UMAS per l'esame neuropsicologico dell'anosognosia per l'emiplegia e per l'emianestesia.

SUMMARY. *Introduction:* The main aim of this study is to test the reliability and validity of the UMAS Questionnaire to evaluate anosognosia for hemiplegia (AHP) and anosognosia for hemianaesthesia (AHA). Anosognosia is the unawareness or underestimation of a specific deficit in sensory, perceptual, motor, affective or cognitive functioning after a brain lesion (Prigatano, 2010). *Methods.* 30 right brain damaged patients were tested with a neuropsychological battery, a neurological examination and the UMAS Questionnaire. This questionnaire has been administered to patients with or without anosognosia for motor and/or somatosensory deficits after stroke. *Conclusion.* The results of this study seem to support the reliability and validity of the UMAS Questionnaire to measure anosognosia for motor and somatosensory deficits.

Keywords: Anosognosia, Hemiplegia, Hemianaesthesia

INTRODUCTION

"Anosognosia is a term that indicates the denial behavior for one's own disease or deficit after a brain lesion. It can be observed in relation to many different kinds of pathological conditions, ranging from denial of mental disease, such as schizophrenia, to unawareness of neurological and cognitive deficits following a brain damage" (Prigatano, 2010). The term *anosognosia for hemiplegia* was first introduced by Babinski

(1914) to denote the astonishing behavior of right brain-damaged patients, who, after having developed contralesional hemiplegia, deny that anything is wrong with their limbs (anosognosia for hemiplegia, AHP).

Patients with anosognosia for hemiplegia claim that they can move their contralesional (plegic) limbs (Pia et al., 2004; Orfei et al., 2007). For instance, if asked about their potential capability of performing actions either with the right or with the left hand, or even bimanual actions, they claim that they