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**REWARD ANTICIPATION IN SCHIZOPHRENIA: A FUNCTIONAL MAGNETIC RESONANCE IMAGING STUDY**

U. Volpe<sup>1</sup>, A. Mucci<sup>1</sup>, G.M. Plescia<sup>1</sup>, V. Montefusco<sup>1</sup>, P. Romano<sup>1</sup>, D. Dima<sup>2</sup>, O. Gallo<sup>1</sup>, A. Soricelli<sup>3</sup>, P. Bucci<sup>1</sup>, S. Frangou<sup>2</sup>, A. Prinster<sup>4</sup>, M. Salvatore<sup>5</sup>, M. Maj<sup>1</sup>, S. Galderisi<sup>1</sup>

<sup>1</sup>Department of Psychiatry, Second University of Naples SUN, Naples, Italy ; <sup>2</sup>Department of Psychiatry, Icahn School of Medicine at Mount Sinai, New York, USA ; <sup>3</sup>Department of Studies of Institutions and Territorial Systems, University of Naples Parthenope and IRCCS Research Institute SDN, Naples, Italy ; <sup>4</sup>Icahn School of Medicine at Mount Sinai, National Research Council, Naples, Italy ; <sup>5</sup>Department of Biomorphological and Functional Studies, University of Naples "Federico II", Naples, Italy

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**INTRODUCTION:** Previous studies have reported that patient with schizophrenia have preserved hedonic capacity, but impaired ability to anticipate future reward (anticipatory anhedonia) that, according to some authors, may underlie other aspects of negative symptoms, such as avolition.

**OBJECTIVES/AIMS:** The aim of our study was to demonstrate an impairment of reward anticipation in patients with deficit schizophrenia (DS), characterized by primary and persistent negative symptoms, but not in those with non-deficit schizophrenia (NDS) with respect to healthy controls (HC), by means of functional magnetic resonance imaging (fMRI).

**METHODS:** fMRI was recorded during the execution of the 'Monetary Incentive Delay' task in 11 patients with DS, 23 patients with NDS and 23 HC, during the anticipation of five different outcomes, small (SR) or large (LR) reward, small (SP) or large (LP) punishment or no-outcome (NO).

**RESULTS:** The ventral striatum response to reward anticipation was preserved in subjects with schizophrenia. Only patients with DS, compared with HC, showed a significant reduction in the left caudate during the anticipation of reward. The reduced activity of the caudate correlated with the scores for avolition but not for anhedonia.

**CONCLUSION:** Our preliminary data suggest an involvement of the caudate in the abnormal processing of reward stimuli in patients with DS and show that avolition and anhedonia are subtended by different functional abnormalities.

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