Unawareness of dyskinesias in Parkinson's Disease: Is there a relationship with Theory of Mind dysfunctions?

Nome Presentatore Sara Palermo (sara.palermo@unito.it)

Titolo (ITA) Non consapevolezza per le discinesie nella malattia di Parkinson: esiste un legame con le disfunzioni di Teoria della Mente?

Titolo (ENG) Unawareness of dyskinesias in Parkinson's Disease: Is there a relationship with Theory of Mind dysfunctions?

Autori Palermo Sara [1], Amanzio Martina [2], Zibetti Maurizio [1], Lopiano Leonardo [1]

Affiliazioni [1] Department of Neuroscience, University of Turin Via Cherasco 15, 10126 Turin, Italy

[2] Department of Psychology, University of Turin, Via Verdi 10, 10123 Turin, Italy

Testo

Introduction: The presence of dyskinesias-reduced-self-awareness (DRSA) in patients suffering from Parkinson's disease (PD) was previously related with metacognitive executive functions. As the association with Theory of Mind (ToM) dysfunction is a matter of debate in PD patients and we hypothesize it could play an important role in DRSA, we analyzed the role of dopaminergic treatment on the medial-prefrontal-ventral-striatal circuitry causing DRSA using a neurocognitive approach. ToM has been recently studied in PD patients suggesting that not only cognitive but also affective ToM may be impaired. However, to our knowledge, there are no studies investigating deficits on awareness of movement disorder and ToM all together.

Objective: The purpose of the current study is to analyze the existence of a relationship between DRSA and abilities related to mentalizing and perspective-taking (affective and cognitive ToM, respectively) that may represent a novel explanation of the phenomenon.

Methods: 48 idiopathic PD receiving levodopa treatment and presenting motor fluctuations (M/F=26/22; age (mean±SD)= 65.79±6.52, MMSE (mean±SD)= 27.65±2.08) were assessed using the MDS-UPDRS scale and the Global Awareness Movement scale (GAM) to measure the presence of DRSA subdividing patients into aware and unaware groups. Patients underwent a first level neuropsychological assessment and questionnaires on behavioral mood changes. Differences between aware and unaware patients with respect to affective (RME) and cognitive ToM (TOM1 and TOM2) were evaluated by means of an independent sample t-test.

Results: We found a significant difference between the two groups for the RME (t=5.224 p=.001) but not for TOM1 and TOM2 (t=-1.269 p=.211; t=.335 p=.739, respectively).

Conclusions: Our data support the notion that dyskinesias-reduced-self-awareness impaired the affective component but not the cognitive component of ToM, thus supporting the idea that DRSA is caused by a complex interplay between motor, neuropsychological and affective factors, rather than being a pure neurological-motor problem.