

## **PATHOLOGICAL GAMBLING IN PD IS DRUG RELATED**

**A. Antonini**

*Department for Parkinson's disease, IRCCS San Camillo Venice, Italy*

[angelo3000@yahoo.com](mailto:angelo3000@yahoo.com)

Treatment of Parkinson's disease has traditionally focused on the management of motor disability while behavioral disturbances have received less attention. Recently, impulse control disorders and aberrant repetitive behaviors have surged to clinical relevance as they occur during dopamine replacement treatment (mainly dopamine agonists) and worsen patient and caregiver quality of life. Patients are unable to adequately estimate the negative consequences of their actions and are prone to entertain compulsive reward-seeking activities. The underlying mechanisms are debated but current evidence points to specific risk factors: male gender, young age at onset, underlying personality traits characterized by high impulsivity and novelty seeking, personal or family history of addictive disorders. Specifically, in predisposed individuals dopamine replacement therapy leads to overstimulation of dopamine receptors within the mesocorticolimbic pathways and in turn to the development of addictive behaviors, such as impulse control disorders and compulsive medication intake. Since these disturbances affect individuals who have often unremarkable psychiatric history and no cognitive impairment, their identification and management is complex. Compulsive medication intake (described as 'hedonistic homeostatic dysregulation' or 'dopamine dysregulation syndrome') is commonly associated with fluctuations in advanced disease, while impulse control disorders frequently occur in early PD and within normal-range medication dosages. Management requires primarily reduction of dopaminergic therapy but psychosocial support is often required. Use of selective serotonin reuptake inhibitors in the dose used for obsessive compulsive disorders may help while benefit from atypical neuroleptics is limited in most cases. Deep brain stimulation should be considered with caution in these subjects. Prevention is based on the identification of at risk individuals and active monitoring. Given the social and potentially medical-legal consequences of these behaviors we encourage treating physicians to discuss risks with patients before treatment is initiated.