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N-ACETYLCYSTEIN IN THE TREATMENT OF SKIN-PICKING DISORDER

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Introduction: N-acetylcystein (NAC) is a precursor to the amino acid cysteine, which participates in antioxidant mechanisms through glutathione production and plays a role as a modulator of the glutamatergic system of neurotransmission. Thus, NAC may exert therapeutic effect in psychiatric disorders.
Objectives: Review the potential therapeutic effects of NAC in psychiatry, with main focus on syndromes of the obsessive-impulsive spectrum, namely skin-picking disorder (SPD), with report of a case series.
Methods: Review of literature collected under key-words “n-acetylcysteine; psychiatric”, “skin-picking disorder”. Report of a series of three cases of patients with SPD treated with NAC.
Results: The three patients were being treated for different multi-impulse control disorders, all of them suffering from SPD. In combination with previously given pharmacological agents, they were administered NAC in dosages from 1200 to 1800 mg/day. All patients had great improvement of skin picking behaviours resistant to other treatments. It was also observed that worsening of symptoms occurred after stopping the NAC and restarting the drug led to new remission of symptoms.
Discussion: Studies suggest that modulation of glutamatergic neurotransmission may decrease compulsive behaviors such as skin-picking, by influencing the reward reinforcement pathway. NAC may be used to achieve this modulation. The fact that in the case series stopping/re-starting the NAC corresponded respectively to worsening/improvement of symptoms, suggests direct relation between treatment with NAC and remission of SPD.
Conclusion: SPD is a prevalent and insufficiently studied condition and randomized controlled studies are needed to ascertain the potential benefits of NAC for patients with the disorder.

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