

C A S E R E P O R T

Cytisine induced urticaria: a case report during a smoking cessation treatment

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Abstract. Cytisine is considered to be the oldest medication for smoking cessation and has been used for this purpose in some Eastern/Central European and Central Asian countries for over 50 years 1,2. Like Varenicline, it is a partial agonist of the nicotinic acetylcholine receptors (nAChRs) with high affinity for the alpha-4 beta-2 nAChRs subtype, and its main action is to reduce withdrawal symptoms following smoking cessation 3,4. Several sources points towards cytisine's efficacy and effectiveness; it's well tolerated when taken at the recommended dose, and adverse events reported in trials are typically non-serious and self-limiting gastrointestinal and sleep disturbances 5–7. We report the first observed case of cytisine hypersensitivity reaction during a smoking cessation treatment. (www.actabiomedica.it)

Key words: cytisine, smoking, hypersensitivity, allergic reaction

Introduction

We report a suspect case of urticaria during treatment for smoking cessation with cytisine in a woman of 48 years treated for smoking at the Unit of Addiction Medicine, Department of Internal Medicine, Hospital Trust of Verona, Italy. The patient reported a family history of allergies and a personal history of previous urticaria after taking acetylsalicylic acid, paracetamol and unspecified antibiotics; she also she reported an allergic skin reaction to nicotine replacement therapy given as nicotine patch during a previous attempt to quit smoking. At the beginning of the treatment she didn't declare any active pathology and didn't take any drugs or other types of herbal products that could interfere with the cytisine treatment; with regard to smoking, she presented a high average physical nicotine addiction, characterized by a score of 6 out of 10 on the Fagerstrom Test for Nicotine Dependence and an important psychological and gestural component

aimed at using the cigarette to relax detected during the previous interview with a psychologist of our Addiction Medicine department. The therapeutic protocol of cytisine that was used is of the “inductive” type; it consists in gradually increasing the daily capsules taken, with a parallel reduction in the number of cigarettes smoked until complete cessation between the fifth and ninth day of therapy (quit day) The number of capsules taken is then gradually reduced. On the sixteenth day of treatment with cytisine (at that time she was taking four capsules a day corresponding to 6 mg) she came to our attention reporting hives that started on the chest and then spread over the back, arms and legs sparing only the palms of the hands and feet. She was treated for the firsts three days with betamethasone 1 mg/die, on the advice of her general practitioner, and suspended Cytisine. A week later the patient showed signs of recovery. To the best of our knowledge, there are no reported cases in the literature of urticaria reactions to cytisine in subjects treated for smoking cessation.

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Conflict of Interest: Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article

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