

LETTER


Alternative Medicine

Antibiotic drug not always the culprit: Allergy to a homoeopathic product

To Editor,

Homoeopathy is one of the most used alternative remedies based on extremely diluted preparations, which can sometimes lead to serious adverse effects. In the majority of these cases, it can possibly trigger allergic reactions or toxic effects.¹ A 77-year-old woman came to our observation 3 months after the onset of extensive urticaria. For a flu-like syndrome, she took azithromycin 400 mg about 24 hours before the event, and an homoeopathic product for flu-like symptoms, (Omeogriphi Guna containing Aconitum napellus 5CH, Belladonna 5 CH, Echinacea Angustifolia 3CH, Vincetoxicum 5CH, Anas barbariae hepatis and cordis extractum 200K, Influenzinum 9CH) about 1 hour before the event. She was treated in the Emergency Department for urticaria with steroids (methylprednisolone 40 mg ev) and chlorphenamine 10 mg im with a complete resolution of symptoms in 3 hours. The patient had no relevant pathologies and did not routinely assume drugs. She had no history of atopic dermatitis or allergic rhinitis/asthma, but she reported occasionally mild oedema and itchy rash to the joints of the hands, not strictly related to medications or food intake. In the past, she underwent patch testing with Italian SIDAPA (series of 40 allergens selected by the Italian Society of Dermatological Professional Allergy), resulting positive to nickel sulphate (+++) and reported a diagnosis of allergic contact dermatitis to nickel sulphate. A skin prick test for most common environmental inhalants was performed resulting negative. Suspecting an adverse reaction to the antibiotic, we performed the flow cytometric basophil activation test (BAT; GlycoTope Biotechnology GmbH) for macrolides, azithromycin and clarithromycin, other than for the homoeopathic product (Omeogriphi). Solanaceae mix extract (Lofarma) was also tested, as Belladonna is a part of this botanical family. Omeogriphi granules were diluted in 1 mL of wash buffer and tested at 1:10 and 1:50 final dilution. BAT was considered positive when the activation marker CD63 was $\geq 5\%$ and stimulation index ≥ 2 (SI = ratio between CD63% expressed after the incubation with the substance and washing buffer).^{2,3} Azithromycin and clarithromycin, as well as Solanaceae extract, resulted negative, while Omeogriphi caused a significant basophil activation (CD63 = 8.2% and SI = 2.6). Subjects with other drug allergies were tested for the same homoeopathic compound with negative results. The patient underwent a challenge with placebo and azithromycin that were both negative.⁴ Antibiotics, when administered with other drugs or chemical compounds, are often the culprits of immediate allergic reactions.⁵ However, in order

to increase the sensitivity of the diagnostic workup, all the assumed drugs/substances should be considered as possible causes of the adverse reaction and when possible, tested. BAT showed an in vitro activation caused by the homoeopathic product rather than by the antibiotic drug, as confirmed by in vivo challenge. This case shows the importance of BAT in the diagnosis of adverse drug reaction, helping the clinician in decisional process to assess the substance responsible for the reaction. Clinicians must be aware of the risks associated with homoeopathy, which are related to low doses of products that can give allergic reactions.

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