

Methylprednisolone/peg-3350/sodium-chloride/sodium-bicarbonate/potassium-chloride/ phenoxymethylpenicillin

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Anaphylaxis to the polyethylene glycol (PEG) excipients : 2 case reports

In a study of eight patients with polyethylene glycol (PEG) allergy identified at the Cambridge University Hospital between October 2013 and February 2021, a 23-year-old woman and a 50-year-old man were described, of whom the woman developed anaphylaxis following treatment with methylprednisolone containing PEG-3350 excipient and phenoxymethylpenicillin containing PEG-6000. Whereas the man developed anaphylaxis following treatment with peg-3350/sodium-chloride/sodium-bicarbonate/potassium-chloride containing PEG-3350 excipient [*routes, dosages, indications, time to reactions onset and outcomes not stated*].

The 23-year-old woman who had various comorbidities including eczema, asthma, allergic rhinitis and sensitised to dust, mite, grass, pollen received methylprednisolone containing PEG-3350 excipient and phenoxymethylpenicillin [penicillin V] containing PEG-6000. However, she developed anaphylaxis to PEG excipient manifested as rhinitis, facial swelling, throat swelling and pre-syncope, oral pruritus, wheezing and urticaria. Later, she was referred for COVID-19 vaccination with AZD-1222. In view of her history of PEG allergy and cross reactivity, she underwent a skin prick test with polysorbate 80 (an excipient of AZD-1222 vaccine). However, she had negative results. She then tolerated the two doses of AZD-1222 vaccine.

The 50-year-old man who had various comorbidities including chronic fatigue syndrome, depression and anxiety received peg-3350/sodium-chloride/sodium-bicarbonate/potassium-chloride [Movicol] containing PEG-3350 excipient. However, he developed anaphylaxis to PEG excipient manifested as generalised urticaria and profound hypotension. Later, he was referred for COVID-19 vaccination with AZD-1222. In view of his history of PEG allergy and cross reactivity, he underwent a skin prick test with polysorbate 80 (an excipient of AZD-1222 vaccine), which gave positive results. Despite this, he tolerated the two doses of AZD-1222 vaccine.