



EDITORIAL COMMENT

Anaphylaxis to an ondansetron wafer

Allergic reactions to ondansetron, a 5-hydroxytryptamine (5-HT₃) receptor antagonist widely used as an anti-emetic, are uncommonly reported.¹⁻⁴

We describe a 12-year-old girl who presented to the emergency department with a 6-h history of vomiting of unclear cause. She was given a 4-mg ondansetron wafer (Zofran Zydys wafer, supplied by GlaxoSmithKline Australia Pty Ltd, Melbourne, VIC, Australia) and within minutes developed facial angioedema, widespread urticaria and a persistent cough. No other medication had been administered. Intramuscular adrenaline resulted in rapid recovery. Ninety minutes later, she had a biphasic anaphylactic reaction (stridor, wheeze, tongue swelling with facial angioedema and generalised urticaria), and a second dose of intramuscular adrenaline was given. A final dose of intramuscular adrenaline was required several hours later due to recurrence of respiratory distress and urticaria. The patient had no prior exposure to 5HT₃ receptor antagonists.

Skin prick test (SPT) was negative (<3 mm) to both the injectable ondansetron solution (2 mg/mL, Zofran solution for injection, supplied by GlaxoSmithKline Australia Pty Ltd) and ondansetron wafer. The intra-dermal test (IDT) of the 1:1000 concentration of injectable ondansetron solution (0.002 mg/mL) was positive at 3 mm. Since the injectable ondansetron solution contained none of the excipients found in the wafer, the positive intra-dermal reaction was thought to represent IgE sensitisation to ondansetron. The reaction was reported to the Therapeutic Good Administration via the online adverse drug reaction reporting system.

Previous reported allergic reactions to ondansetron have typically occurred in adults with cancer, often with a history of prior exposure, and all after intravenous administration.²⁻⁴ In many cases, the reactions have been severe.¹⁻³ However, in a number of cases, other drugs were given concurrently, and

SPT/IDT to ondansetron was not performed.¹⁻³ Our patient had an anaphylactic reaction, with two biphasic reactions of similar severity, after the first exposure to ondansetron administered sublingually.

Some have suggested the avoidance of all 5HT₃ antagonists following ondansetron allergy due to the possibility of a class effect.^{2,3} Others have reported the successful use of granisetron but cross reactions to tropisetron,⁴ the latter sharing an indole ring with ondansetron. We did not perform SPT/ID on other 5HT₃ antagonists since ongoing anti-emesis was not required in our patient.

Until further evidence is available, we recommend in those with ondansetron allergy where long-term anti-emesis is clinically indicated that SPT/ID to some selected 5HT₃ antagonists be conducted, and if negative, a challenge be performed under medical supervision in hospital.

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References

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