

## External ear findings during anaphylaxis

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To the Editor:

A 29-year-old woman was scheduled for cholecystectomy. Immediately after inducing general anesthesia with fentanyl, propofol, and rocuronium, she developed tachycardia, hypotension, and bronchospasm. The presumptive diagnosis was anaphylaxis, and treatment with epinephrine, diphenhydramine, albuterol, and hydrocortisone was instituted. We inspected the skin and mucosae for manifestations of an allergic reaction, such as erythema, urticaria, and buccal edema.

Only after persistent scrutiny did we find the only cutaneous sign corroborating our diagnosis on the patient's left ear (Suppl Fig. 1A). There was swelling of the helix and antihelix, and a small hive proximal to the concha. The hypotensive and bronchospastic crisis lasted approximately 15 min in spite of aggressive treatment. The planned surgery was cancelled and the patient required an intravenous epinephrine infusion and mechanical ventilation for several hours. A serum tryptase level obtained 15 min after the onset of the allergic reaction was 53 ng/ml (over four times

the normal value which is <12.5 ng/ml), indicating significant mast cell degranulation [1]. A photograph taken 8 h after complete resolution of all signs and symptoms demonstrates that these skin findings can be easily overlooked (Suppl Fig. 1B).

The highest likelihood is that rocuronium was the offending agent. A skin prick test performed after discharge strongly suggested rocuronium allergy. Although skin manifestations may not initially appear in allergic reactions during general anesthesia, detailed skin inspection is required for early detection of anaphylactic reaction.

### Reference

1. Laroche D, Gomis P, Gallimidi E, Malinovsky JM, Mertes PM. Diagnostic value of histamine and tryptase concentrations in severe anaphylaxis with shock or cardiac arrest during anesthesia. *Anesthesiology*. 2014;121(2):272–9.

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