



Is sugammadex alone sufficient to cause anaphylaxis?

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To the editor:

We read with great interest and were very impressed by the report regarding sugammadex-induced anaphylaxis by Yamaoka et al. [1]. While the conclusion derived from the skin test results, which were positive for the sugammadex–rocuronium complex but negative for sugammadex alone, was correct, we believe that anaphylaxis after sugammadex administration does not necessarily result from the sugammadex–rocuronium complex acting as the antigen. The reason is because we have multiple cases in which sugammadex alone was sufficient to obtain positive test results both in vivo (i.e., skin tests) and in vitro (i.e., basophil activation tests), including a previously published case report [2]. Moreover, if the sugammadex–rocuronium complex expresses antigenicity after separate injections of rocuronium and sugammadex, anaphylaxis should have occurred in the intradermal tests that we have performed multiple times for our patient with sugammadex-induced anaphylaxis.

We would also like to discuss a technical issue associated with skin tests in this report. The maximum recommended concentration of rocuronium for intradermal tests is 50 µg/ml (1:200) [3]. Although avoidance of false positive results is necessary, we do not believe that the excessive intradermal

administration of rocuronium affected the outcome of this case.

Nevertheless, further research would be necessary to clarify the mechanism(s) of sugammadex-induced anaphylaxis.

Compliance with ethical standards

Conflict of interest The authors declare that they have no competing interests.

References

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