Reviewer's report

Title: Mopane worm allergy: A Case Report

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Reviewer: Jonathan Brostoff

Comments to authors:

The time course of the clinical allergic response is not typical of Type 1 hypersensitivity reactions. The nurse seemed to be ill for 3 to 4 days after ingestion. Immediate 'food' allergy is less likely to last that long.

Is there any previous allergy history in this nurse. Did she get hay fever, did she have eczema in the past or present and are there any other indications of an allergic predisposition? Did the nurse have any suggestions of chronic symptoms of any sort such as migraine, arthralgia or irritable bowel syndrome?

The fact that she has been eating the Mopane worm for so many years suggests that she had developed oral tolerance to the worm and the question is why did she react on that occasion.

There is no confirmation that the worm was the causative allergen. Testing the patient with skin prick tests is the gold standard for diagnosing IgE mediated food allergy. Crush the worm and put a little of the liquid on the arm and prick through the drop with a needle. A standard skin prick test. If this is positive, it does suggest that the nurse is sensitized to the worm protein. The time course of the skin test is that a wheal occurs in the skin test site and reaches the maximum diameter in about 20 minutes.

Control subjects who are regularly eating the worm should also be skin tested to see if sensitization is a common phenomenon. There is a difference between having specific IgE in the serum (and a positive skin test) and actually having a clinical allergic effector response/reaction.

This paper is strong on speculation as to why the worm is more allergic because 'threatened' but there is no evidence for this. There will be
reference laboratories in southern Africa with capacities for Western Blot analysis of the various worms and this would be a most interesting study.