## Dietary supplement product composed of natural ingredients as a suspected cause of erythema multiforme: A case report and identification for the confident false positivity of lymphocyte transformation test

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- **Background** Growing/sustainable consumption of healthcare products raises a controversial issue underlying reliability of in vitro diagnostic approach for adverse skin reaction.
- Methods Based on our case with erythema multiforme developed after intake of a commercial Euglena product whose lymphocyte transformation test (LTT) was positive, we examined an inquiry survey for laboratory service-based LTT with commercial Euglena products, LTT with the product and each 9 component in normal healthy volunteer, and a cell-free culture verifying bacterial contamination.
  - **Results** Our surveillance identified 22 subjects, almost all of whom (95.6%) were positive for Euglena products. All 7 normal volunteers showed equivalent LTT positivity with the same product taken by our case; culprits included Euglena, Angelica keiskei, Barley grass, and Chlorella. A cell-free culture and ELISA suggested that the constant high LTT positivity is not due to contamination of uncharacterized microorganisms and endotoxins (**Figs. 1a-c**).



Conclusion

LTT is unreliable for in vitro supportive diagnosis of adverse organ events caused by particular organic materials.

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