

BRIEF TOXICOLOGY COMMUNICATIONS

Since many aspects of clinical toxicology involve visual clues, the editorial board of *The Journal of Medical Toxicology* is pleased to announce a new section.

1. The focal point of this section is an image supported by a clinical case or a vignette of information. This is not intended to replace case reports, which are published elsewhere in the journal. Examples may include a physical finding, creature, plant, chemical structure, medication vial or bottle, ECG tracing, historical photo, and so on.
2. The submission should be no more than 500 words.
3. A clinical question should accompany the image. A clinical narrative must be included and will be published separately in the same issue. The narrative should include any pertinent pathophysiology, mechanisms, pharmacokinetics, and a reference list.
4. Text and image format must meet the criteria listed on the Instructions for Authors at <http://jmt.pennpress.org/PennPress/journals/jmt/authorGuide.pdf>
5. Submissions should be sent directly to lesliedye@earthlink.net

What is this plant and why is this Japanese artist eating it?

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ANSWER/DISCUSSION:

Japanese lacquer artists use an urushiol-based product derived from *Toxicodendron vernicifluum* (the Japanese lacquer tree) to beautify and protect their wooden crafts and sculptures. Urushiol, a mixture of unsaturated pentadecylcatechols, is also the sensitizing agent in poison ivy (*T. radicans*) and related species. When heat polymerized, urushiol creates a strong, long-lasting, and non-immunogenic, barrier [1]. Following prolonged exposure to liquid urushiol-based lacquer, applicators develop immunological hyposensitization, allowing them to work intimately with the urushiol monomer without developing the pruritic and uncomfortable vesicular rash typical of poison ivy (allergic contact

dermatitis) [2]. Removal from exposure for a period of only a few weeks may allow loss of immunologic memory, likely explaining the desire of this lacquerware artist to consume poison ivy while away from his art studio.

In certain Asian cultures, the ingestion of lacquer derived from *T. vernicifluum* is considered a gastrointestinal tonic and general health aide. This particular artist noted that he used a drop of poison ivy (or related species) sap every day to neutralize acid indigestion, as well as keep his immunity to this group of plants. There are records of Native American use of this plant to enhance immunity to urushiol-induced dermatitis [3]. Through effects on immunologic function, urushiol and *Toxicodendron* extracts may have beneficial effects on inflammatory and neoplastic diseases.

Keywords:

There was no outside funding of any kind used for this study

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However, in many patients the ingestion of lacquer frequently produces widespread systemic "contact" dermatitis [4]. As noted, chronic exposure results in hyposensitization.

The authors have no potential financial conflicts of interest to report

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