Desensitization to Poison Ivy

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People can become sensitized to poison ivy with such relative ease, that the plant and its allies constitute the most important source of contact dermatitis.

The genus Rhus contains various species which have the property of irritating susceptible skins. The accepted belief is that the typical Rhus dermatitis is the result of contact after previous exposure and sensitization to the active substance in the plants.

Although more than fifty species have been described as native to this country, the active substance is common to all the poison ivies. The excitant is the same in all plants and desensitization with a properly standardized and stable ivy preparation can be used in cases of poisoning from all species.

Modes of Contact. A dermatitis may be acquired by direct contact with the sap of the plants, or by indirect contact with the plant sap which may adhere to articles of clothing, animals, tools, sports equipment, etc. The dry sap adhering to such objects may retain its potency for many months.

Prophylaxis

1. Susceptible persons should be taught to recognize the plant and avoid contact with it, also being aware of indirect methods of contact.
2. Eradication of the poison ivy plant by spraying.
3. In susceptible people who have been exposed, the plant resin should be removed the the skin surfact as soon as possible by washing with soap and water and using defatting agents such as acetone, alcohol, etc.
4. Desensitizing by perenteral and/or enteral routs.

Administration of Extracts Chewing ivy leaves to prevent dermatitis has been extolled for generations. Schamberg[1] recommended oral prevention with increasing doses of tincture of Rhus toxicodendron; unfortunately, the preparation was not stable, nor was the dosage standardized. However, he maintained that oral therapy was satisfactory.[2]

Strickler[3,4] and others recommended desensitization by a series of injections. The efficacy of poison ivy injections is controversial.

Results have been disappointing, injections are often painful, repeated injections objectionable. It is my opinion that a dermatitis venenata can be exacerbated and its course prolonged by perenteral treatment. In fact, Shaffer et.al.[5] reported a death following such therapy.

Shelmire[6] advocated desensitization employing an oil extract. Although he had considerable success, in many instances the preparation had to be discontinued because of generalized reactions, gastro-intestinal disturbances and, in most instances, an intractable pruritus ani.

Study An effective oral preparation, which is uniform in potency, practically nil in side effects employing a standard dosage is presented.

This report is based on the prophylactic use of this preparation in 161 private patients in all walks of life with known susceptibility to ivy poisoning.

The purpose of this study was to determine the efficacy of Oral Ivy* in the prophylaxis of poison-ivy oleoresin.

The series of patients were supplied with Oral Ivy; children under the age of six years were instructed to take 3 drops in one quarter glass water, milk or fruit juice before breakfast for six weeks beginning the first week in March and then three times weekly until the end of the poison ivy season. Adults were advised to follow the same regimen with a five drop dose.

It was noted that in 120 of the 161 individuals observed the Oral Ivy was effective in reducing the severity and frequency of recurrent episodes while on the prophylactic regimen. In those individuals who developed episodes of dermatitis venenata while on this regimen, it was noted that they were exposed to the poison ivy plant within two weeks after starting on the oral prophylaxis. There was no evidence of intolerance or gastro-intestinal side effects.

Patients who previously suffered three or four attacks a year when exposed, had only insignificant lesions which were not annoying, others had complete protection. The following is a case history.

A.S., age 16, had severe attacks of dermatitis venenata since the age of three. He had a series of ten weekly injections to prevent poison ivy in 1948 which did not prove successful

In 1950 he had three injections for prevention and he suffered an inflammatory reaction from them but they were unsuccessful in preventing dermatitis venenata.

In March, 1952, he was given an injection of poison ivy extract. However, he had a recurrent venenata that summer. March 21, 1953, he had a 4 plus reaction to Rhus Antigen. He took 5 drops of Oral Ivy in ¼ glass of water before breakfast for 1 month. He was again patch tested to Rhus Antigen and had a one plus reaction. He continued his Ora Ivy for two more weeks and was re-patch tested to Rhus Antigen at which time the test was entirely negative.

Interval Note: March 8, 1954, the patient stated "he did not have an attack of poison ivy all last summer for the first time in 13 years," yet he went to camp and did not change his routine from previous years.

Two national tree and lawn service companies distributed Oral Ivy in their field work and reported the "over all results were better than 75% effective."

Conclusion

There appears to be clinical evidence of the prophylactic efficacy of Oral Ivy in this preliminary clinical report. However, further adequate control series is being conducted with placebo therapy.

References

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[*] Oral Ivy, Milderm Research Laboratories, 1011 Arch Street, Philadelphia, Pennsylvania.