

Treatment of Poison Ivy with Kutapressin

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## Treatment of Poison Ivy with Kutapressin\*

*This non-toxic and non-allergenic liver derivative brought healing of lesions and relief of symptoms, usually within three days*

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The dermatitis produced by contact between the human skin and poison ivy (*Rhus toxicodendron*) can be classified also under the headings of contact dermatitis or dermatitis venenata. Poison ivy is a severely irritating allergen which produces a marked inflammatory reaction in the skin of sensitive humans. Vesiculation and the formation of bullae are commonly observed. Such reactions may last for three weeks or more, and occasionally sensitization to other allergens may be produced. Hence, chronic eczema may ensue.<sup>1</sup> This marked dermatological

reaction is produced by a chemical in poison ivy called urushiol. It is a mixture of o-dihydroxybenzene derivatives with a normal fifteen carbon side chain with two unsaturated bands ( $C_{21}H_{32}O_2$ ).<sup>2</sup> The dermatitis usually attacks the exposed portions of the body. The patient's eyelids often become extremely swollen, possibly due to absorption of this toxin.

As for the differential diagnosis, Lewis<sup>3</sup> states that contact dermatitis is usually of recent origin, while atopic dermatitis has often been present for months or years. According to Lewis: "In most cases, the

\*Kutapressin, Kremers-Urban Company, Milwaukee, Wisconsin.

1. Voser, W. M., *Fundamentals of Internal Medicine*, p. 964, Appleton-Century Co., New York, 1942.

2. Andrews, G. C., *Disease of the Skin*, p. 104, W. B. Saunders Co., Phila., 1954.

3. Lewis, G. M., *Practical Dermatology*, p. 31, W. B. Saunders Co., Phila., 1952.

diagnosis of contact dermatitis is readily made on the superficial character of the rash, the itching and the presence of the rash on exposed areas of the skin. In approximately half the cases the cause for the dermatitis is readily determined. In the rest, a certain amount of detective work is required before the responsible allergen is discovered. In some cases, the cause is never discovered."

Feinberg<sup>4</sup> states that proteins are the usual irritants in the atopic types of disease, while in the contact types, proteins are practically never the specific irritants. The active antigen in ivy has the nature of a lipoid.

#### ROUTINE TREATMENT

Since poison ivy produces a severe dermatitis in which exudation and pain are very severe, routine treatment has been devised to control these conditions. Hence solutions, as Burow's solution or comparable preparations, are applied to the affected skin for 15 to 30 minutes several times daily.<sup>5</sup> Anti-pruritic drugs, such as methyl salicylate, phenol, and menthol also are used. Anti-histaminic drugs, given orally, may give some relief. Hydrocortone ointment,<sup>6</sup> in a propylene glycol base, may be employed.

ACTH and Cortisone are said to be of great value in such severe cases, but as Andrews<sup>7</sup> points out, the eruption may recur a week or two after these drugs are discontinued. X-ray therapy is said to be of some value for relieving the itching.<sup>8</sup> Alexander<sup>9</sup> mentions the treat-

ment of severe dermatitis with Cortisone, 100 to 200 mg. a day, together with 60 to 100 mg. of ACTH. Most of these patients were discharged from the hospital on the third day and were able to resume work. This therapy relieved the pruritus within 12 to 36 hours. Alexander reports that ten control patients treated by routine measures, averaged six days of hospitalization and eleven days of disability.

#### KUTAPRESSIN THERAPY

The current treatments for poison ivy have not been entirely satisfactory. Both ACTH and Cortisone are expensive, recurrences of the dermatitis occurred in several patients as soon as these agents were discontinued. One patient, who was treated with Cortisone, became sensitive to this drug.

Writing in a bulletin for a group of allergists, White<sup>10</sup> discussed the treatment of cases of chronic urticaria. He stated: "It is amazing the number of cases I have had which did not respond to the steroids, but did respond to Kutapressin in symptomatic relief; and sometimes resulted in definite cure while we were attempting to uncover the etiologic factor."

Kutapressin is a non-toxic, non-allergenic derivative from liver which produces vasoconstriction of the dilated terminal arterioles and capillaries. It rapidly reduces skin edema; hence fluid tension on the skin nerve endings is lessened, and this action produces relief from itching and pain in afflicted patients within a matter of minutes.

In consideration of the difficulties encountered in steroid therapy for

4. Feinberg, S. M., *Allergy in Practice*, p. 692, Year Book Publishers, Inc., Chicago, 1944.

5. Vide supra #3, p. 31.

6. Vide supra #2, p. 106.

7. Vide supra #2, p. 106.

8. Vide supra #3, p. 31.

9. Alexander, H. L., *Reactions with Drug Therapy*, p. 245, W. B. Saunders Co., Phila., 1955.

10. White, C. J., *The Letters of the International Correspondence Society of Allergists* 19:30, 1956.

poison ivy, the results obtained with Kutapressin are especially impressive. For the specific treatment of poison ivy, excellent therapeutic results can be obtained when a simple procedure is followed.

This series studied consisted of 28 patients with dermatitis, caused by the toxin of poison ivy. These patients were treated independently in separate offices. A dose of 2 cubic centimeters was administered subcutaneously daily, usually in the posterior aspect of one of the patient's arms. The patients ranged in age from 13 to 84 years. With every patient in this series, the administration resulted in a definite blanching of the involved integument. Pruritus was ameliorated usually within a few hours' time, and the edema and hyperemia in the involved skin areas subsided markedly within a period of 12 hours after the first injection.

All patients remained ambulatory during therapy, and each case was pronounced greatly improved and discharged within three days. All patients were given a daily dose (2 cubic centimeters) subcutaneously. There were no untoward reactions to this medication, and the patients welcomed this therapy. There were

no complaints of pain due to injections with this medication. No other medications were used to treat these patients.

#### SUMMARY

~~A non-toxic and non-allergenic derivative of liver, which possesses a marked ability to constrict capillaries without raising systemic blood pressure, brought excellent results in the treatment of poison ivy. This medication is practically painless upon injection.~~

Twenty-eight patients with poison ivy were treated with daily subcutaneous injections of Kutapressin in 2 cubic centimeter doses. Every patient responded to this treatment, usually sufficiently improved by the third day to warrant discharge from further care.

The results obtained from this clinical study suggest that Kutapressin is specific for relief of symptoms and for healing the lesions caused by poison ivy. No recurrence of the disorder was observed in any case after medication was discontinued. The best current therapy for the adequate treatment of poison ivy dermatitis appears to be daily injections of Kutapressin.