

## ROENTGEN DERMATITIS TREATED WITH FRESH WHOLE LEAF OF ALOE VERA

By C. E. COLLINS, D.D.S., M.D.,

and

CRESTON COLLINS, M.S.

CRISFIELD, MARYLAND

**R**EPORTS of a dermatitis peculiar to and incident to excessive exposure to roentgen rays began to appear a few years after the discovery of the roentgen rays was announced to the medical profession.

In many cases it has been shown that where there was reason to suspect only a short exposure to roentgen radiation in excess of the "tolerance" dosage, then the prompt application of ultraviolet appeared to counteract a percentage of the roentgen radiation. Pigmentation would, of course, result but morbid skin changes might be prevented.

By far the more numerous, however, have been those cases of workers in roentgenology, and patients who, because of improperly measured dosage, unanticipated hypersensitivity, or other reasons, have suffered from varying degrees of roentgen dermatitis, usually with a delayed reaction; and in a few instances from a permanent and possibly progressive destruction to underlying tissues.

It is because complete cures have been reported in so few of these severely burned cases that we think it worth while to record an evident cure in the following typical but not selected case:

### REPORT OF CASE

A white woman, aged thirty-one was, on March 2, 1934, seen to be suffering with a severe roentgen dermatitis. There was desquamation over an area 4 by 8 cm. on the left side of the forehead, extending 2 cm. above the hair line. The history showed that in May, 1932, she had received (in another city) what she had been told was a depilatory roentgen treatment. Fourteen months later, she said, the skin of the forehead and scalp became rough and scabby and itched continuously (dermatitis exfoliativa). Between July, 1933, and March,

1934, she had successively consulted three physicians, all of whom had agreed as to the diagnosis, and who had prescribed (variously) boric acid, phenol in olive oil, ichthyol, a 5 per cent mercurial ointment, and zinc oxide. The condition had become progressively worse until there was (as has been stated) extensive desquamation with oozing of serous fluid. The patient stated that the itching and burning sensations were so severe and constant that she was compelled to wear cotton gloves at night in order to prevent scratching the damaged area and inducing bleeding.

After a review of this history and an examination of the condition it was felt that a skin graft was indicated and the patient was so advised. At the time of examination the patient was furnished with a quantity of aloe vera (fresh whole leaf) for local application, with the hope that this material might serve as a palliative (i.e., act to allay the itching). Twenty-four hours later she reported that the sensation of itching and burning had entirely subsided. She was instructed to continue the use of the plant material, and when seen from time to time during the next five weeks the condition was found to be progressively improved.

At the end of this time (i.e., on April 7, 1934), there was complete regeneration of the skin of the forehead and scalp, new hair growth, complete restoration of sensation, and absence of scar. There was at this time a slight blanching of the affected area. When last seen on July 23, 1934, the healed area appeared to be completely cured, with no indication whatever of a relapse. On exposure to the summer sunlight the skin of the forehead was seen to be pigmenting normally along with other exposed skin surfaces of the body.

### COMMENT

The aloe vera leaf contains a large quantity of a light yellowish-green material having about the color and consistency of lemon jello; it is this intestine material which is used for local application. The

leaf may be split lengthwise or cut into thick cross-sections and the intestine material macerated. While this is still fresh, liberal quantities are applied to the area to be treated, covering it with a neutral, non-porous substance (such as waxed paper). Bandage or adhesive may then be

used to secure the mass in place. An hour or two is the life of an application; it will then be found to be dark and gummy. It is simply washed off carefully with warm water, using no soap or medication. The applications may be renewed as often as may be desirable and convenient.

