

PRELIMINARY AND SHORT REPORTS

THE THERAPEUTIC VALUE OF AUREOMYCIN IN
DERMATITIS HERPETIFORMIS*HARRY M. ROBINSON, M.D., HARRY M. ROBINSON, JR., M.D. AND RAYMOND
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The possible viral etiology of dermatitis herpetiformis and the erratic response of this disease to all forms of therapy is well known.

The discovery that aureomycin¹ was an effective anti-virus agent was the stimulus which led one of us (H. M. R. Sr.) to give the drug a therapeutic trial. This antibiotic was isolated by Duggar (4) from a recently discovered species of the genus streptomyces (*Streptomyces aureofaciens*). The virucidal properties have been described in detail by Wong and Cox (5) and also by Wright and his co-workers (6).

Five patients have been treated up to the time of this report and the results have been sufficiently satisfactory that we believe a preliminary report is justified.

CASE REPORTS

S. M., a married, white female, aged 65, was first seen in May 1947. She had a vesicular eruption which had been present for five months. She had already received (from other physicians) injections of penicillin and liver extract, and had had ultra violet light and x-ray treatment, without benefit. A diagnosis of dermatitis herpetiformis was made. Sulfapyridine was prescribed in doses of 1 gram four times a day. One year later she returned. At that time, vesicular lesions were present only on the breasts and in the scalp, but she complained of severe nausea, after taking the sulfapyridine. On January 19, 1949 she again returned, stating she had had several partial remissions, followed by exacerbations with numerous lesions. At the time of this latter visit she had a generalized eruption presenting numerous groups of vesicles on the trunk and extremities. She was given 250 mgms. of aureomycin four times a day for two days, and 500 mgms. four times a day thereafter. One week later, almost all itching had subsided and there was involution of all the vesicles (hundreds of them). She had received a total of 12 grams of aureomycin in divided doses. She complained of nausea, which, however, was not severe enough to prevent her from continuing the treatment. One week later, February 3, the itching had entirely subsided and all the lesions had completely cleared up. Her tongue had become red and sore, the nausea persisted, and she was constipated. Last seen—March 16, 1949—a few discrete vesicles had recurred and one unruptured vesicle was present.

A. R., a married, white female, aged 67, was first seen in August 1948, with groups of vesicles on the distal third of the right leg, accompanied by severe itching. A diagnosis of localized dermatitis herpetiformis was made. She was given intravenous injections of calcium gluconate, and sulfapyridine by mouth, 1 gram four times a day. She was next seen on September 8. Some of the lesions had subsided, but new lesions had appeared, one of the vesicles being 4 cm. in diameter. When seen on October 13, she gave a history that all the vesicles had disappeared the previous week but had since recurred. From October 27 to November 3, she was given tablets of carbarsone, 250 mgms. the first day, increasing by one tablet each day. On November 3, the vesicles were more numerous. On January

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12, both legs presented numerous groups of vesicles. On January 18, about one week later, not having shown any improvement, she was given aureomycin, 250 mgms. four times a day for two days and 500 mgms. four times a day following this. On February 2, (after 15 days of aureomycin) all of the lesions had disappeared from one leg and almost all from the other leg. The patient had to discontinue the aureomycin temporarily, because of marked nausea, but resumed it after a two days lapse. By this time all lesions had subsided. In a telephone communication on February 4, the patient stated that all lesions had completely cleared and all itching had subsided. She was told to continue taking the capsules until the next visit. It took 20 grams in this case to cause involution of all the lesions. Three weeks later, at her next visit, there was one small vesicle present, 3 mm. in diameter. On March 12, 1949 there were no lesions present. Last visit—March 16, 1949—there was one vesicle on the left leg and two groups of vesicles on the right leg. She was anxious to resume aureomycin because of the relief it had given her.

H. E. Z., a single, white female, aged 64, was first seen in November 1947, with a vesicular eruption of four weeks duration. Her physician had given her a course of injections of rhus toxin, and in addition, she was taking pills which were said to be for anemia. At the time of the examination in 1947, there were numerous vesicles, many of which were in annular configuration. A tentative diagnosis of dermatitis herpetiformis was made and the patient was given pyribenzamine and benadryl, experimentally, to take in alternating three day courses and intravenous injections of calcium gluconate. Two weeks later, because of the increase in the number of vesicles, she was hospitalized. Sulfapyridine was prescribed, but after three days, this had to be discontinued because of severe nausea. She was then given carbarsonne in increasing doses, beginning with 250 mgms. the first day and increasing one tablet each day. By April 1948, all vesicles had disappeared, leaving the skin somewhat hard and discolored. On January 6, 1949, the patient returned presenting numerous groups of vesicles on all parts of the trunk and upper and lower extremities. This was diagnosed as dermatitis herpetiformis. Many of the vesicles had been excoriated, and the patient complained of severe, intractable itching. On January 27, there having been no improvement, and, because we had had such good results in two other patients, she was placed on aureomycin, 1 gram four times a day for two days, to be followed by 2 grams four times a day until further notice. One week later, all lesions had disappeared after taking 12 grams of aureomycin. Patient was advised to continue taking the capsules until further notice. Last visit—February 25, 1949—there were a few (about six) discrete vesicles scattered over the body. She claimed, however, that this new treatment had given her better results than all other methods. In a telephone communication on March 18, 1949, patient stated that she had no lesions.

P. C. H., a single, white male, aged 59, was first seen on January 8, 1949 with a skin eruption which he said had been present almost continuously for two years. The only treatment which he had had was local applications such as calamine lotion and ointments. None of these had been of any value. On examination, numerous groups of vesicles were noted, involving the trunk and extremities; many of these were excoriated and covered with bloody crusts. The eruption involved the entire chest, abdomen, back, and buttocks, and to a slight degree, the extremities. There were also numerous pigmented areas which were the remains of old lesions. The diagnosis was dermatitis herpetiformis. Intravenous injections of calcium gluconate were administered and the patient was given a prescription for sulfapyridine, 1 gram three times a day, and also for delvinal sodium to be taken at bedtime. One week later, the itching had lessened but the vesicular eruption had not changed. When the patient reported on February 1, presenting numerous groups of vesicles, he was included in this group of aureomycin-treated patients and was given 50 capsules of 250 mgms. each of aureomycin, to be taken one four times a day for two days and two four times a day for the next two days. Four days later the patient returned, feeling greatly improved. On examination, all of the vesicles had undergone involution and there were no excoriations present. He stated that there was very little itching present. He

was told to continue the aureomycin and was observed three days later, at which time there were no vesicles present and only pigmentation remained. Up to this time, he had had no reaction from the medicine, but during the next few days, on continuing the aureomycin treatment, he developed severe diarrhea and had a bad taste in his mouth. The reaction was severe enough to force discontinuance of the drug. However, he remained free of dermatitis herpetiformis lesions and up to February 28, no new lesions had appeared. Last visit—March 15, 1949—the patient returned and presented a few new lesions.

N. W., a 28 year old negress housewife, was admitted to the Medical service of the Baltimore City Hospitals on February 22, 1947, with a complaint of "sores all over her body". Four months prior to admission, in the seventh month of pregnancy, she noticed blisters on the left cheek and left popliteal fossa. There was no itching, but painful ulcerations in the mouth were present. The condition underwent spontaneous involution just prior to a normal delivery. Three weeks prior to admission there was a recurrence, first on the tongue, then the body, and finally her face. Physical examination revealed a generalized bullous dermatosis with discrete and grouped thin-walled vesicles varying in size from that of a pea to a silver dollar. Buccal mucosa and tongue were eroded. No genital lesions were noted. There were no significant laboratory findings. The Pels-Macht phyto-pharmacological test was negative. A tentative impression of pemphigus vulgaris or dermatitis herpetiformis was made and a course of penicillin therapy instituted. After apparent improvement, there was a severe exacerbation while penicillin was still being administered. A total of 12 grams of streptomycin in 5 days was given, during which time no new lesions appeared but the temperature remained elevated. The drug was discontinued and carbarsone therapy was begun. Three days later combined streptomycin and carbarsone treatment was started and continued for 16 days. There was a slow but steady improvement and carbarsone was given alone for an additional 43 days (500 mgms. daily in three day courses followed by three day rest periods) and patient was discharged. Three months later an exacerbation required readmission for carbarsone. After 82 days she was discharged and remained in remission for 8 months. During the third admission, sulfapyridine, streptomycin, carbarsone, intravenous calcium gluconate and benadryl were tried unsuccessfully and new lesions continued to appear, principally in herpetiform groups; at this time a final impression of dermatitis herpetiformis was made. On February 24, 1949, almost ten months after the third admission, and because of the numerous vesicles present, oral aureomycin, 500 mgms. four times daily was started and objective improvement was apparent within 72 hours. No new lesions have appeared and all old lesions have healed, there being only hyperpigmented areas at the sites of previous bullae and eroded areas. Within one week the patient was able to stay out of bed most of the day and at the end of the second week asked when she was going home. Aureomycin is being continued in the same dosage at the present time. There has been no recurrence up to March 17, 1949

SUMMARY

Aureomycin has been used in five patients with dermatitis herpetiformis. Relief from itching and involution of vesicles occurred in from one to two weeks. In our experience no other drug or method had given as quick or satisfactory response. In four of the five patients there were slight recurrences after discontinuance of the antibiotic. Nausea was encountered in three of the five patients, but all were anxious to resume the aureomycin when there were recurrences. Diarrhea was severe in one patient and this patient refused to continue the drug.

It is possible that an adjustment of the dose may give a better result. The sponsors of the antibiotic believe they can eliminate the nausea-causing element.

CONCLUSIONS

1. Aureomycin has been used in the treatment of five cases of dermatitis herpetiformis.
2. The dosage schedule used was 250 mgms. four times a day for two days and thereafter

500 mgms. for the duration of treatment. We believe, however, that if the dose is kept at one gram a day, the reactions may be avoided.

3. Marked subjective and objective improvement was noted at the end of one week's treatment when a total of 12 grams had been administered in divided doses. Treatment was continued for four weeks.

4. The patients state that this method of treatment has been superior to all other forms of treatment they have received.

5. Annoying nausea has occurred in four of the five patients; one suffered severe diarrhea.

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