

- (2) HALPERN, B. N.: Arch. Intern. Pharmacodyn., **68**: 339, 1942.
- (3) LOEW, E. R., KAISER, M. E., AND MOORE, V.: Synthetic benzhydryl alkamine ethers effective in preventing fatal experimental asthma in guinea pigs exposed to atomized histamine. J. Pharmacol. & Exper. Therap., **83**: 120, 1945.
- (4) MAYER, R. L., HUTTRER, C. P., AND SCHOLZ, C. R.: Antihistaminic and antianaphylactic activity of some pyridino-ethylenediamines. Science, **102**: 93, 1945.

PYRIDOXINE IN THE TREATMENT OF ACNE VULGARIS

A. W. STILLIANS

Emeritus Professor, Department of Dermatology and Syphilology, Northwestern University Medical School

Received for publication February 21, 1946

In 1942 Joliffe, Rosenblum and Sawhill reported (N. Joliffe, L. A. Rosenblum and J. Sawhill: the effects of pyridoxine (vitamin B₆) on resistant adolescent acne, Jour. Investigative Derm., **5**, 143, 1942) the benefit they obtained in the treatment of acne vulgaris by administering B₆ in large doses over a long period. In their first series of 10 cases, 3 were cured, one in 5 months, one in 10 and one in 11 months. All the others improved; but in 4 whose eruption did not recur when the vitamin was discontinued they suspected that the improvement was not due to its influence.

Their second series consisted of 40 students, 11 of whom became free of the eruption while on treatment with pyridoxine. One was clear after only 1 month of treatment, 1 after 3 months and the others after an unstated period of treatment with B₆ in doses ranging from 50 to 250 mg. per day. Of this group 19 improved, 6 were not benefitted. Of 35 controls treated with a placebo tablet resembling in appearance the one containing the pyridoxine, 7 improved but none were entirely freed from the eruption.

In an effort to duplicate their results, I have treated 41 cases of acne vulgaris, 18 in young individuals normal in health except for the acne, 23 in patients with pulmonary tuberculosis, inmates of a sanitarium. Eleven cases have been excluded because they quit the treatment before the third month, which seemed to me a reasonable minimum. Three others are omitted because of complications which made it impossible to judge the effect of the medication. All patients received local treatment, a sulfur lotion or cream for the area involved and in many cases a sulfur or chloral hydrate scalp stimulant.

Nineteen cases who received 50 mg. of vitamin B₆ daily for from 3 to 8 months failed to show improvement that could be ascribed to the vitamin.

In a few cases the dosage was increased. A man 30 years old was given 50 mg. daily for 8 months, then 100 mg. a day for 2 months without definite benefit.

A man of 32 was given 50 mg. per day for 9 months, then 200 mg. a day for another month without benefit.

A boy of 16 was given 50 mg. daily for 6 months, 150 mg. a day for another month, then 225 mg. daily for 2 months more without improvement.

A girl of 20 years of age was given 50 mg. per day for 2 months then 100 mg. per day for another month without benefit.

Only 4 of my patients were benefited by the medication.

Case 1: A man of 26 with acne indurata of the back improved on 6 months treatment with 50 mg. daily.

Case 2: A man of 27 with superficial acne of the cheeks and upper back and a bright erythema of the nasal tip was treated for 7 months with vitamin B₆, 50 mg. and 10 mg. of riboflavin per day. In 2 months his acne was better, the nasal erythema persisting. The riboflavin was discontinued, the pyridoxine continued. In 5 months his acne was much improved. After 7 months treatment he was given 100 mg. of vitamin B₆ daily for 6 weeks, when the dose was increased to 200 mg. per day for a month. His acne recurred mildly at intervals; but the nasal redness persisted.

Case 3: A woman of 32 with superficial acne of long duration on her cheeks and forehead was given 50 mg. of pyridoxine daily. In one month she was better and the improvement persisted until she left the city at the end of the third month. I had no opportunity to rule out the effect of local treatment as the cause of her improvement.

Case 4: A man of 37 with several deep acne lesions on his neck and others more superficial on his cheeks was given 50 mg. daily for 2 weeks. His acne then showed a decided improvement, which persisted for 4 weeks longer, when the pyridoxine was discontinued. In 2 weeks the acne had grown worse and continued so for a month. On resumption of the vitamin the eruption promptly improved and remained better until a month later, when the face and neck were clear of eruption. The treatment was continued for 6 weeks longer, then stopped. A month later the acne had recurred and the medication was resumed. Again there was a prompt improvement and during another 3 months the patient has had only an occasional pimple. This seems to me convincing evidence that the vitamin exerted a direct influence upon the skin disease.

The beneficial effect of pyridoxine was evident also in 2 patients who had both acne vulgaris and rosacea. The rosacea cleared under medication with riboflavin, 10 mg. per day and pyridoxine 50 mg. a day. But the acne showed only slight improvement, which was not greater than local treatment could have caused. On cessation of the riboflavin the improvement of the rosacea persisted; but after the pyridoxine was stopped it promptly grew worse.

SUMMARY

Of 27 patients who had treatment for acne vulgaris with pyridoxine in large dosage for 3 months or more, 2 showed moderate improvement, one a decided betterment and a fourth repeated improvement during the vitamin treatment with immediate recurrence when it was stopped.

In 2 cases of acne with rosacea the rosacea element was benefited by administration of pyridoxine. The pyridoxine was furnished by Merck and Company, Rahway, New Jersey.