

These findings were rather unexpected in view of the rapid deterioration of aureomycin *in vitro* at neutral or alkaline pH, and at the temperature employed.⁹ Other factors in the embryo, however may affect the stability of the two agents and some of these factors are now under study.

Conclusions. Both aureomycin and chloromycetin prolong the life of chick embryos infected with the 6BC strain of psittacosis virus. There is a direct relation between the dose of antibiotic and the prolongation of life of

the embryos, the infecting dose being kept constant. With equal doses of the antibiotics, aureomycin prolonged the life of the embryos for an average of from 2 to more than 3 days longer than chloromycetin, depending on the dose used.

On a weight basis, aureomycin was more than 3 times as effective in protecting chick embryos against the dose of virus that was used in this study. On a molecular basis the aureomycin was more than 5 times as effective as chloromycetin in this infection.

⁹ Paine, T. F., Jr., Collins, H. S., and Finland, M., *J. Bact.*, 1948, **56**, 489.

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Hypotension Associated with Nutritive Failure.* (17434)

TOM D. SPIES AND ROBERT E. STONE†

From the Department of Nutrition and Metabolism, Northwestern University Medical School and the Nutrition Clinic, Hillman Hospital, Birmingham, Alabama.

During the 12 years we have been studying persons with nutritive failure in a large Nutrition Clinic, we have learned that there is a great variation in blood pressure among such persons. Readings range from those which are too high to be obtained on an ordinary sphygmomanometer to those which are extremely low. In general, however, we have found that in the person with nutritive failure the blood pressure usually is below normal and that it tends to rise slowly as the nutritive failure is corrected. Even in patients with both hypertension and nutritive failure, we have observed that the blood pressure tends to increase slightly when the nutritive failure is corrected and that they lead a more energetic life.

It occurred to us that it would be worthwhile to determine the effect of desoxycorticosterone acetate on blood pressure. Since it has been known for some time that the development of edema, hypertension, and cardiac

failure are the chief dangers associated with overdosage of desoxycorticosterone acetate,¹⁻⁴ we selected for study 3 persons who had been under observation in our Clinic for many years and who had every evidence of a properly functioning cardiovascular system except that the blood pressure was below normal. Each morning for a month these patients came to the Clinic early for special consideration and study. After they became accustomed to this routine, their blood pressures were taken under resting conditions each morning at 20 minute intervals over a period of 2 hours for 2 days. Then they were given intramuscular injections of sterile saline and the blood pressure readings were taken as before. This procedure was continued for 4 days. When no systolic reading above 100 and no diastolic reading above 65 was obtained, the patients were considered

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† Clayton Foundation Fellow.

¹ Ferrebee, J. W., Ragan, C., Atchley, D. W., and Loeb, R. F., *J.A.M.A.*, 1939, **113**, 1725.

² Grollman, Arthur, *Essentials of Endocrinology*, Philadelphia, J. B. Lippincott Company, 1941, p. 317.

³ Soffer, Louis J., *Diseases of the Adrenals*, Philadelphia, Lea and Febiger, 1948, p. 162.

⁴ Hartman, Frank A., and Brownell, Katharine A., *The Adrenal Gland*, Philadelphia, Lea and Febiger, 1949, p. 223.

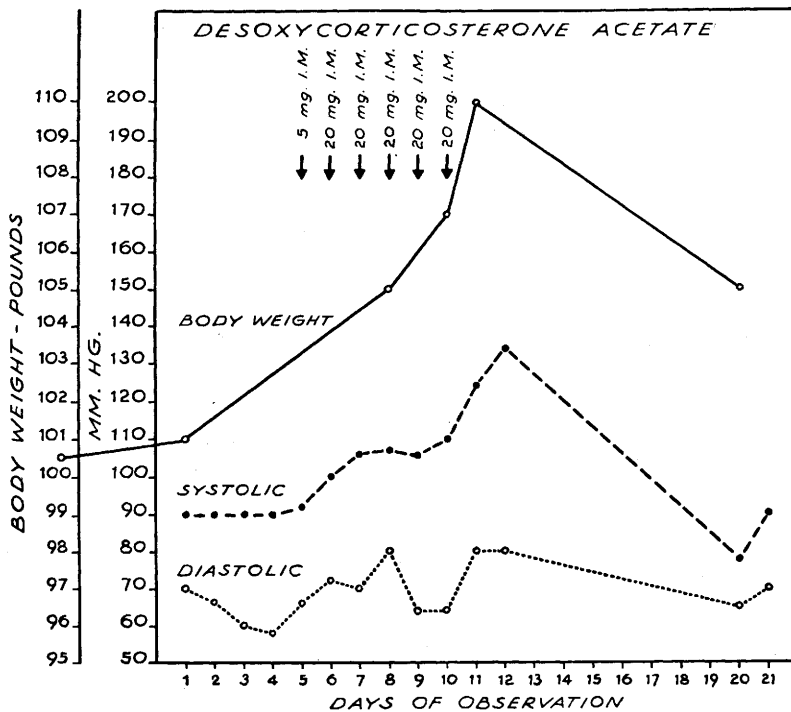


FIG. 1.

Shows the effect of the injection of 105 mg of desoxycorticosterone acetate over a period of 6 days. The diastolic and systolic blood pressure and the body weight increased. Note the drop in the blood pressure determinations and the body weight following cessation of administration of the desoxycorticosterone acetate. The increase in body weight was associated with swelling of the ankles which decreased as soon as the material was discontinued.

to be in a suitable condition to initiate injections of desoxycorticosterone acetate. It was injected intramuscularly early in the morning and a series of blood pressures was taken as before. The first day each of the 3 patients was given 5 mg of desoxycorticosterone acetate intramuscularly; the second day 1 of the patients was given 5 mg and 2 were given 20 mg each; the third day 1 was given 10 mg and 2 were given 20 mg each. On the fourth, fifth, and sixth days the dosage in each case was as shown in Fig. 1. On the third day following the injection of the initial dose of desoxycorticosterone acetate, the patients began to complain of tightness of the skin over the ankles. Fig. 1, which is representative of the 3 cases, illustrates the effect of desoxycorticosterone acetate on the systolic and diastolic pressures and on the body weight.

Summary and conclusions. Following the administration of desoxycorticosterone acetate

to persons with nutritive failure and hypotension, there was a prompt increase in blood pressure readings and in body weight (the increase in body weight is associated with retention of sodium in the tissues and this problem is being studied further). When the administration of this substance was discontinued, the blood pressure readings promptly returned to normal. During the first week after the administration of desoxycorticosterone acetate was begun, one patient stated that she had great symptomatic improvement; one complained of severe headaches, and she developed a "moon-faced" appearance which gradually disappeared when the injections were discontinued; the third patient noticed only swelling of the ankles. While our findings are of general interest, we do not recommend the use of desoxycorticosterone acetate as a therapeutic agent for hypertension.

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