

**CLINICAL MEMORANDA.**  

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**CASE OF STOKES-ADAMS SYNDROME:  
TREATMENT BY ADRENALIN.**

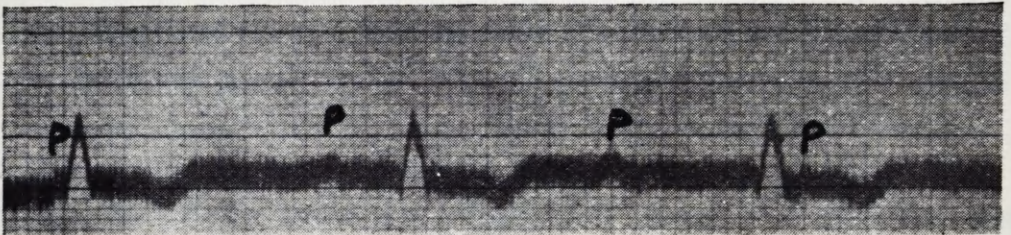
THE record of the following case shows the value, in the Stokes-Adams syndrome, of subcutaneous injections of adrenalin, a form of treatment advocated in 1922 by Phear and Parkinson ("Lancet," 1922, vol. i, p. 933-6).

J. C., aged 71 years, a mason, was admitted to Dundee Royal Infirmary on 2nd April, 1926, suffering from recurrent attacks of unconsciousness.

His health, up to a few months before, had been good, though his arteries were thickened and his blood-pressure high. The heart was not enlarged, and there were no murmurs. Some weeks before coming to hospital he began to experience "fainting" attacks, accompanied by a feeling of swirling in the head. These came on, as a rule, after he got out of bed in the morning, and were not attended by unconsciousness, except on three occasions. At 11 P.M. on 1st April, however, there occurred the first of a long succession of severe seizures, which were practically all alike in character. First, and without warning, the eyes took on a staring look, and in a few seconds the face became of an ashen hue. No pulse could be felt, and consciousness was rapidly lost. A few seconds later the pulse returned at the wrist, the face flushed, and the patient regained consciousness suddenly. Some muscular twitchings were observed, but nothing like a generalised convulsion. The pulse, between these seizures, varied in rate, but was slow, rates of 20, 24, and 48 being recorded at different times. In one attack there was asystole for nineteen seconds, followed by four beats in the succeeding thirty seconds, and then the pulse settled to a rate of 48 per minute.

From 11 P.M. on 1st April till 10 P.M. on 2nd April about six attacks an hour were noticed. From 10 P.M. till 11 P.M.,

there were eleven, from 11 till midnight nine, and in the half-hour after midnight six. At 12-30 A.M. (3rd April) 0.5 c.c. of adrenalin hydrochloride (1-1000) was injected subcutaneously. There was an attack ten minutes later, and then none till 3-55 A.M. Between that hour and 5 A.M. there were six. At 5 o'clock 1 c.c. of adrenalin was injected. An attack occurred at 5-5 A.M., and thereafter the patient remained free, and felt comfortable. But it was noticed that in the few hours which followed the second injection of adrenalin, the face



was remarkably flushed. He was kept under observation in hospital for ten days, and during this period the pulse remained regular and slow (23-28 per minute). From the time of his discharge from hospital till the present the pulse has shown the same slow rate, there has been no recurrence of attacks, and he is able to walk about.

Examination with the electrocardiograph (Dr. W. S. Malcolm) and with the polygraph, after the attacks had passed off, showed that heart-block was complete. It was found to be complete also at the time an examination was made three hours before treatment was begun.

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