NOTE ON NITRO-GLYCERINE IN EPILEPSY.

By WILLIAM OSLER, M.D.,

PROFESSOR OF CLINICAL MEDICINE IN THE UNIVERSITY OF PENNSYLVANIA; PHYSICIAN TO THE INFIRMARY FOR NERVOUS DISEASES, PHILADELPHIA.

NATURALLY enough, when the remarkable action of the nitrites on unstriated muscle was discovered, their use was suggested in epilepsy, a disease believed to be due to arterial spasm in the hemispheres. Nitrite of amyl, nitro-glycerine, and nitrite of sodium have been carefully tried by many observers with very varied results. Dr. Wier Mitchell and Dr. Hammond were, I believe, the first to employ nitro-glycerine in this disease, and they have reported beneficial effects in suitable cases. I was induced to try it by the very favorable results reported by Dr. F. W. Campbell, of Montreal. I have used it in nineteen cases. It may be administered in solution, one per cent., or in pilules of 1-100 of a grain; and I find the latter, as prepared by reliable chemists, very satisfactory. I begin with two, three times a day. As individuals appear to differ in their susceptibility to this drug, each case must be tested before the proper dosage can be determined. I doubt if any good follows unless the physiological effect is obtained. Sensations of flushing of the face, fullness of the head, and a pleasant glow over the body, indicate that the proper dose has been reached. In some patients these symptoms are produced by one or two pilules, but in others not until six or eight have been taken. Headache and dizziness were the only unpleasant symptoms complained of, and on this account, in two instances, the medicine had to be stopped. I have notes of nineteen cases in which the nitro-glycerine was tried for periods ranging from six weeks to six months. In thirteen

of these cases there were severe epileptic seizures, six were instances of *petit mal* with occasional convulsions. Briefly stated, in nine cases there was improvement, as shown in the reduction of the frequency of the attacks. Of these, six were cases of major epilepsy ; and three, instances of *petit mal*. The benefit was usually manifested within a week or ten days. Thus case 16, a man aged 27, had had fits for ten years, and when seen, April 5th, had as many as two or three a day. He had taken potassium bromide largely, and at one time with great benefit. Antifebrin was given in gr. viii, two or three times a day, but seemed to be without any influence. On June 1st, nitro-glycerine was given, ℥v of the one per cent. solution, three times a day. Within a week the attacks were greatly lessened, and in the second week after beginning he had only two attacks. He continued to take it all through the summer, getting up to ℥viii doses, t. i. d. He does not think that anything he has ever taken reduced the fits so much. On November 11th, he stated that he had stopped it for a month ; the attacks have recurred less frequently, and he had been able to be at work.

In some of the cases in which the betterment was most striking at first, the remedy seemed to lose its influence, and after a month or two had to be abandoned. I cannot say that in any one of the nine cases the improvement has been more than temporary. In two of the cases of *petit mal* the attacks were greatly reduced, and one patient remained free for two months, but I learn by letter that the attacks have returned. Altogether, my experience has not been very encouraging. We may say that, in a limited number of cases, when the bromides have failed or are beginning to lose efficacy, nitro-glycerine may be used with advantage. I have also used the nitrite of sodium in a few cases with indifferent success.