

A NOTE ON THE USE OF DIATHERMY IN IDIOPATHIC EPILEPSY.

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IN 1935 V. V. Issahyev reported very favourable results from the treatment of a number of cases of idiopathic epilepsy by diathermy to the head, stating that although the method could not be held to cure the complaint, nevertheless it produced considerable relief in the majority of cases. The object of the present investigation has been to repeat this form of treatment in a further series of cases in order to see how far these results could be confirmed.

LITERATURE.

Issahyev treated 24 cases, 12 of each sex, whose ages and duration of affliction varied within wide limits. He specially selected patients in whom the fits were frequent, in order to obtain quick results, and included both *grand mal* and *petit mal* in his series. The treatment was given on alternate days and the number of applications varied from eight to twenty, the course being repeated at four-monthly intervals in three of the severest cases. No other treatment was given and the patients continued to carry out their usual daily routine.

After one year's observation he was able to report improvement in 75% of the cases, and deterioration in none. He found that the frequency of attacks was diminished for more or less protracted periods, occasionally up to one year; the individual attacks lessened in intensity and the general condition of the patient improved. Endocrine disturbances decreased the efficiency of the treatment, and in these cases it was found necessary to use opotherapy in addition. The effectiveness of the cure did not show any relationship to the duration of the illness, but those having the largest number of fits did the best.

TECHNIQUE.

In the present series 11 cases were treated, all males, patients of the South Yorkshire Mental Hospital. In every instance the fits were frequent, averaging at least ten per month, and in no case was there an endocrine basis. No alteration was made in any treatment which had been employed up to the time of starting diathermy, such as the administration of luminal, nor any change made in the ordinary routine of institutional life.

The patient was placed in a reclining position and a suitably covered electrode, 6 by 12 cm. in size, applied to the neck, which had been adequately shaved. Two similar but slightly smaller electrodes were connected to the other terminal, of which one was applied to the forehead and the other to the epigastrium. All electrodes were moistened with saline, and were kept firmly in position by means of suitably arranged straps. The commencing current

used was 400 m.a., increased to 600 m.a. at the second sitting, and to 800 m.a. at the third, the latter strength being maintained for the rest of the sittings, which were fifteen in all, each of twenty minutes' duration and given on alternate days.

RESULTS.

Only two of the cases showed improvement, the remainder showing no change. In no instance was the complaint aggravated. In both of the two cases showing improvement the treatment was begun when the patients were in *status epilepticus*, and the improvement showed itself not so much in the shortening of the status as in a modification of the fits in the period succeeding it. In the first case these were greatly reduced in frequency for 4 months, as compared with their incidence before. In the second case there was no difference between the frequency before and after the status, but in the latter period there was a diminution in the severity of individual fits, which were of shorter duration and not succeeded by the long period of confusion which had previously characterized them, and also the patient was improved mentally, and more easily managed. This has lasted up to the present—that is, for ten months.

In view of the large proportion of failures—82%—the investigation was hardly worth continuing as it occupied the time of the staff for a considerable period, and was not likely to become a routine method of treatment for epilepsy. It is not possible to exclude the possibility that the apparent improvement in the two cases described above may have been the quiescent period which often follows a series of fits—a “quiet after storm”—although cases having a large number of fits were those which Issahyev found to do best, and in this respect the present results coincide with his. However, he does not make it clear whether his cases were those in which the frequency had been maintained for a long time prior to diathermy, or whether the fits just happened to be more frequent at the time when the treatment was begun. If the records of epileptics, covering a number of years, are examined, wide variations in the monthly incidence of fits will be found, and it is not justifiable to claim that any form of treatment is successful unless the incidence is permanently reduced in a large proportion of cases.

SUMMARY.

(1) The treatment of idiopathic epilepsy by diathermy has been tried in 11 cases.

(2) With the possible exception of two cases the results were disappointing, and it was not considered worth while to continue the investigation.

I am indebted to Dr. A. Pool, Medical Superintendent of the South Yorkshire Mental Hospital, for permission to carry out this work and publish the results, and to Mr. A. Booth for his care in carrying out the actual treatment.

Reference.—Issahyev, V. V., *Klinicheskaia Meditsina*, 1935, pp. 1186–90.