The Journal of the American Medical Association

VOL. XXV.

CHICAGO, DECEMBER 14, 1895.

No. 24.

ORIGINAL ARTICLES.

ON THE RELATION OF SEX TO THE PROGNOSIS OF EPILEPSY.

Read in the Section on Neurology and Medical Jurisprudence, at the Forty-sixth Annual Meeting of the American Medical Association, at Baltimore, Md., May 7-10, 1895.

BY WILLIAM BROWNING, M.D.

BROOKLYN, N. Y.

The purpose of this paper is briefly to call attention to a difference in the sexes as regards chances of recovery from the convulsive habit. This is a matter that has not been absolutely overlooked, though it seems to have received scant attention. Only in Gowers have I so far found any original reference to it, and he simply says that, "the prospect of arrest is slightly better in males than in females."

It is unusual for sex to play a very important rôle in those diseases that are common to both male and female. Among epileptics there is no great preponderance of one sex over the other. In my former statistics (to July, 1891)¹ of this disorder there were 84 M. to 66 F. Reynolds found 102 M. to 70 F., but says that "practically, the two sexes appear to be about equally affected." Some later statistics indicate a slight excess of females, but this is disputed. And it should not be overlooked that males are more exposed than the opposite sex to accidents provocative of epilepsy. At any rate in my own series the numbers of the two sexes have not varied sufficiently to account for any considerable difference in results. At most this has but a relative bearing on the subject in question.

It is of course true, that a great majority of epileptics are but little amenable to treatment. Nevertheless this does not hold for selected cases. If the trouble occurs in a young male (youth or early manhood) and is taken promptly in hand, and if the case does not show organic lesion or too many marks of degeneracy and can be followed up, there is in my experience, a considerable, perhaps an even chance of cure—taking this term in the sense of cessation of seizures for years at least after conclusion of treatment.²

In other and less favorable cases in males, there is correspondingly less hope of cure, though it is now and then possible. The relief of weak heart, ear troubles, gout, the expulsion of tape worms, etc., and sometimes more direct medication will give an occasional cure.

If, now, we compare with this showing in males, the results obtained in females, we find, in my experience, one long line of failures. In dispensary prac-

tice there has hardly been an exception to this.³ True, we can give some relief and occasionally think we are to effect a cure. In some cases of digestive or cardiac disturbance, that have been attended by one or two seizures, evidently but symptomatic in nature, we may even see a complete cessation. And the like may hold for an occasional case of so-called reflex origin. But in any case in the female that could certainly be classed as epilepsy there has been no cure, and only now and then any material amelioration. In private practice, the results have been but little better—the longest free period in any female patient has extended but one year.

Therapeutically, not only has the same plan been tried as in the males, but also various modifications of it with the hope of better suiting the female.

The same fact appears casually in the paper to be presented here by my colleague, Dr Barber. He soon had to give up his trial of *solanum carolinense* in the case of females, because of its entire failure, while in the boys there has been sufficient benefit to enable him to continue observation.

In view of these facts, the unsatisfactory outcome can hardly be attributed to a poor adaptation of treatment. In seeking an explanation I have come across a few things having apparently some bearing thereon, though even if related or parallel matters they serve quite as much to verify as to explain.

In the first place it may be recalled that any intoxication habit (for alcoholics, narcotics, or what not) is less tractable in women than in men. It is, alas, little enough so in either. Under institutional care this may not be apparent, but in private cases one soon has to recognize this fact.

Again, my service at the Kings County Hospital includes a department of some fifty feeble-minded and idiotic children. Last year a party of noble women in Brooklyn started a school for the instruction of these incapables. There it was soon apparent that though the sexes were almost equally represented in the whole number of inmates of that department (twenty-six males to twenty females), the number of girls capable of any real instruction was usually about half that of the boys (thirteen males to six females at this writing). This was the more surprising, as in other mixed schools the girls are pretty uniformly found to be on an average brighter, more studious and conscientious than the boys. But inquiry elicits the information that generally in schools for the mentally defective, the boys are found brighter as scholars and more amenable to training than the girls.

The very kind reply of my friend, Dr. M. W. Barr, Chief of the Pennsylvania Training School for Feeble-Minded Children at Elwyn, is well worth giving:

¹ The Epileptic Interval, etc., New York, 1893.

² In a continuous series of thirty-four cases, all males, ranging in age from 11 to 25 years, nine were seen but once, and hence must be deducted. In the remaining twenty-five, many of the above specified conditions were not adequately filled, and yet they gave a record of six definite and five more presumptive cures.

³ In a continuous series of thirty-four females, covering the same period as the above series of males and with like range in ages, twelve were seen but once, thus leaving twenty-two. Among these there was but one in which there was any question of cure and even this was too uncertain to be so classed.

"We find that the mental improvement is more marked in the boys than in the girls—the ratio of 3 to 2.

"The physical improvement is about equal in both sexes. We find that the mental condition does not always depend on the physical, nor the physical on the mental.

"I do not know any explanation of this, or why the boys are more improvable than the girls, except that the girls are more nervous and less willing to do good honest work than the boys."

These matters seem to have a direct bearing, however difficult it may be to analyze closely, on the main point raised. Perhaps there is some additional force in the fact that a portion of the imbecile class are also epileptics. It would be interesting to know the school ratio, so to speak, of the mental cripples that are free from epilepsy.

On the other hand, a comparison of the gross statistics of recovery in the insane, fails to discover any particular difference in the sexes. Barring the excess of male paretics over female, the chances of recovery are about equal in the two, if we take all forms together (shown by adding up some 15,000 cases from recent asylum reports).

Any attempt to interpret these matters is little more than speculation. It is, however, important to find the true explanation in the case of the epileptic, as on it must depend our treatment to be successful.

(a) The suggestion of a "greater strain placed upon females at the age of puberty" (Hare), hardly calls for serious consideration. If such an element exists it must tend rather to produce an excess of epileptics in that sex than to any essential difference in the resulting disease itself.

(b) The influence of a possible hysterical factor is better worth attention. I must acknowledge that it has often proved a difficult question to decide on its existence or not in female epileptics. At one visit a case will appear a pure epilepsy, and at another the hysterical features will be just as clear. This is a separate matter from hystero-epilepsy; although where the latter in the female proves to be more than transitory, definite epileptic symptoms soon begin to color the case.

With males, on the contrary, my experience is uniformly to the effect that epilepsy and hysterical epilepsy are well separated, *i.e.*, a given case is wholly one or the other.

But the persistent factor in female epilepsy has never been influenced by a regard, therapeutically, to a possible hysterical side, though this is only negative and weak evidence.

(c) The power of habit in the female. That this is greater than in the male may be granted. But, even if this applies to acts beyond the influence of the will, it can hardly account for the lesser mental receptivity of the weak-minded female, though this latter may be an entirely separate affair.

(d) Finally, it is possible that failure of treatment in the female epileptics depends on some inherent fundamental condition and that we can never expect to make it as successful as in males.

The results of operative treatment have not been considered in this paper, partly because that applies to a special class of cases and partly because there would be too few females for a proper comparison, as well as the great uncertainty in most of the results reported.

So far, we can at least recognize that, while there is a fair chance of cure in the most favorable male cases, we must expect little in the female—and remember it in prognosis.

A CLINICAL NOTE ON THE TREATMENT OF EPILEPSY BEFORE THE HABIT IS FORMED.

Read in the Section on Neurology and Medical Jurisprudence, at the Forty-sixth Annual Meeting of the American Medical Association, at Baltimore, Md., May 7-10, 1895.

BY E. D. FERGUSON, M.D.

TROY, N. Y.

Though many links in the chain which would represent the complete pathology of epilepsy are lacking, enough is known to furnish occasionally a clew to rational treatment, and whether our measures may be addressed to some etiologic factor or be symptomatic as the administration of the bromids for the control or diminution of the attacks, it seems fairly evident that in the majority of instances the longer and more frequently the seizures have been occurring the greater will be the difficulty in abolishing them or diminishing their frequency.

In a general way, the influence of long continued recurrence is recognized under the name of habit, and is no doubt to be accorded some importance; for it will scarcely be necessary to adduce illustrations of the influence of habit on many of the functions of the body.

Undoubtedly, in the treatment of epilepsy, more brilliant results will obtain in those cases in which the cause is ascertainable and of such a nature and so situated that it can be efficiently treated, and in particular will we be entitled to expect a successful result if the case comes under observation while still showing only the minor forms of its manifestations; but even when we are unable to direct our measures from an etiologic standpoint, and must rely upon the ordinary routine means, if the treatment be thorough and energetic, begun at an early date and continued for a long period, we may cure some cases that would prove incurable if subjected to treatment at a later date. This applies to the cases subjected to any therapeutic plan, whether surgical (at any point from the vertex to the soles of the feet) or medicinal, as the usual course of the bromids. In these cured cases, however, there is occasionally a lingering doubt that those presenting only the minor manifestations might fail to develop into *le haut mal*, but no one can doubt that a proportion still remains in which if *le petit mal* be relieved the patient is saved from the greater events of the disease.

By way of illustration, I will cite two instances of the minor form, presumably of reflex origin, and associated with that somewhat overworked source of irritation, phimosis.

The first case, a boy about 6 years of age, had for several months been noticed to act peculiarly during urination. That fact was reported to me, and I requested the parents to note carefully the events occurring at that time; the report embraced the statement that he would defer the act as long as was practicable, and then, when about to accomplish it, would seem agitated as by fear; his face would become pale, he would start backward a step or two, his body would become rigid, and there appeared to be a momentary unconsciousness; but as the urine began to escape these symptoms would diminish so that at the completion of the act, or a few moments thereafter, he would be ready to resume his play or studies.

It was some time before I saw the child for exam-