

mounting as high as 16 and 18. It is thus manifest that the average duration of thirty-eight cases of chorea treated with arsenic would not vary essentially from the average duration of six cases so treated. Denial of this certainly would be hypercriticism.

In computing the average duration under their method of treatment, Drs. Gray and Tuckwell have included the duration of the disease *prior* to the patient's admission into the infirmary. This is obviously improper: Their own figures show that this prior duration may vary from 3 to 84 days! The average of this prior duration in my cases was, moreover, 39 days, while in theirs it was 31 days; my cases, therefore, having been ill some 8 days the longest. Unless, then, it be asserted that chorea will last the same length of time, whether the hygiene and nutrition be good or bad—an assertion which I am certain these gentlemen do not make—this prior duration must be excluded. Were I, however, to admit it, there would still remain a balance of 12 days in favor of the arsenical treatment, the total duration of my cases having been 55 days, as against 67 in the English patients.*

In singular corroboration of the figures at which I have arrived, twenty cases of chorea treated with Fowler's solution of arsenic in St. Thomas' Hospital in London, in 1858, averaged 26 days. No details are given. And these figures, in their turn, add substantiation to the opinion so long prevalent in the profession, as to the unsurpassed value of arsenic in the disease under consideration; an opinion which, be it said to the honor of American medicine, was first emphatically enunciated in a communication published in 1839 † by Dr. D. M. Reese, of Albany, and to whom, therefore, and not, as is generally stated, to Dr. James Begbie, of Edinburgh, whose paper was read in 1858, belongs the credit of having been the first to call the attention of the profession to this important clinical fact. ‡

I have sought, but only with measurable success, for statistical material wherewith to institute a comparison between the arsenical and other modes of treatment. Sulphate of zinc in increasing doses, as well as the preparations of iron, were administered to a number of patients in St. Thomas' Hospital in the year mentioned above. Of eight cases to whom the zinc was given, five only were cured, the remaining three being merely improved, whilst the average duration under treatment of the cured cases was 29 days. The ferruginous preparations

affected a cure on the average in 44 days. Five cases are recorded by Mr. H. T. Butlin* as having been cured by the sulphate of zinc in 37 days upon the average, whether with increasing doses or otherwise is not stated. Other reliable figures than these I have not been able to find. It is needless to point out that these bear no comparison with those obtained in the treatment by Fowler's solution.

But, notwithstanding that the arsenical treatment of chorea in the manner described checks, as I am persuaded, the course of the disease more quickly than any other remedy of which we possess knowledge, the "expectant" treatment is by no means to be contemned. I dispute simply its relative, not its actual, value. Of the latter there is abundant proof, which can be found partly in my preceding statements upon the subject, partly in the histories of many of the cases detailed by Drs. Gray, Tuckwell and Wilks. The latter gentleman tells of one patient, for example, who had been ill two years, under treatment in the out-door department for twelve months, and who was cured in two weeks after admission to the hospital. And it would be equally unjust to deny that the sulphate of zinc or the ferruginous preparations possess efficacy. On the contrary, I believe that, were the treatment of chorea to be directed in rigidly logical accordance with what accurate information we can command, it should consist of a judicious combination, according to the circumstances, of two or more of these remedies. Foremost of all in effectiveness I should deem the administration of Fowler's solution of arsenic, accompanied by good hygiene and a sufficiency of nourishing food. The arsenic should be administered in promptly and steadily increasing doses to the supervention of slight toxæmia or the distinct remission of the movements; and the patient should live in well-ventilated apartments, should have necessary but not excessive exercise, should be well protected by adequate clothing from atmospheric changes, should have abundant sleep at seasonable hours, should be removed from all sources of excitement, and especially from all emotional disturbance, and should be properly supplied with savory, nutritious aliment. Should there happen to co-exist anæmia or a similarly indicative condition, it would be eminently proper to add iron. The conviction almost forces itself upon me that a series of cases carefully subjected to this conjoint treatment would show more favorable results than any yet obtained. Should the arsenic for any reason be inadmissible, the sulphate of zinc should take its place, commencing with two grains, and gradually increasing every few days by a grain, until the drug produces some slight ill symptoms, or until improvement, whereupon the dosage-

*The total duration of their cases, as given by Drs. Gray and Tuckwell, is 69 days. But I have omitted case three of Dr. G.'s latest publication because of the relapse from an accidental cause, not connected with the disease. I have thus reduced the time by 2 days.

† N. Y. Journ. Med. and Surg., Oct., 1839.

‡ Ed. Med. Journ., vol. 3, 1857, 1858, p. 961, read before the Med. Chir. Soc., Edin., April 7, 1858.

* Lancet, Oct. 21, 1871.