A CLINICAL OBSERVATION IN SUPPORT OF THE THEORY OF THE CONTAGIOUSNESS OF PULMONARY CONSUMPTION.

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FROM all that could be learned of the family-history of Mr. and Mrs. G., no suspicion of an hereditary tendency to consumption could be traced; on the contrary, both his and her forefathers had been noted as being healthy and long-lived, and they themselves, at the ages of fifty-seven and fifty-five respectively, are quite hale and strong. Their family consisted of six sons and two daughters, between the ages of thirty-one and twelve; and they had been strong and healthy children, with no apparent tendency to disease.

About three years ago, the third son (George) caught cold, as it was said, and came from his home in Glasgow, where he was living with his wife, to be nursed in his father's house in Aberdeen. He was examined by a medical man in town, who stated that he was suffering from pulmonary consumption; and he died about two months afterwards. The accounts of his illness leave no doubt that the disease was correctly diagnosed, and that it had run its usual course.

There is an obscure history that some of the members of George's wife's family had died of consumption; but she had none of the symptoms of it, and was quite well when last heard of.

George had been nursed by his sisters, Kate, aged then about twenty-one, unmarried, and Mrs. B., aged eighteen, since married, who, it is stated, were then both stout healthy girls.

The first month after George returned to his father's house, a younger brother (Charles), aged fourteen, slept in the same bed with him; but afterwards, for convenience of nursing, went into another room.

Shortly before George's death, Kate began to lose colour and flesh; but little notice was taken of her, as it was ascribed to fatigue and grief for her brother.

In July 1882, I was called to see Mrs. B., who had been married a few months previously, and who occupied, with her husband, part of the same house with her parents. I found consolidation of the right apex, and a larger patch of consolidation in the left apex, which had just commenced to break down. She had an anæmic appearance, but was fairly plump. Her forenoon temperature was generally about 100°, but she had no night-sweats. The paroxysmal cough was the chief source of complaint. The disease progressed rapidly, in spite of cod-liver oil emulsion, Coghill's inhaler, etc.; and, in November, she died in a few minutes from an attack of hæmoptysis. She had become rapidly emaciated, and both lungs were extensively broken down. The sputa, which had become abundant, swarmed with bacilli.

During Mrs. B.'s illness, my attention was called to her sister Kate, who was nursing her, and I found in her also apical consolidation to a slight extent, with rapid pulse and an anæmic appearance. She had no cough at that time, and seemed to improve when ordered hæmatonics and separation from her sister.

During the same summer, a boy came to my house from time to time, complaining much of shortness of breath and weakness. On examining his chest, I found a suspicious dulness at the left apex. I gave him quinine and iron tonics, and he improved for a time. I did not see him for a few months; but one day I found him in Mr. G.'s house, when I discovered that he was one of the family—in fact, Charles, aged now nearly seventeen.

From time to time I visited Kate and Charles, who became gradually worse; and in a few months they died, with all the symptoms of phthisis, within a few days of each other.

There now remain four sons: the eldest, a tailor's cutter, is married, and has two strong and healthy boys; the second, a saddler, is the picture of vigorous manhood; the third, a sailor, who came in point of age between George and Kate, is a strong and vigorous man, who has come through many hardships, having been several times wrecked: "on one occasion, he was in an open boat on the Atlantic for fifteen hours, with no clothing but his night-dress, and then three days with only a suit of oil-skins above the night-dress" (a brother's statement); and the youngest, a boy now of fifteen years, is a draper's apprentice, and is strong and healthy.

Here, then, we have a man suffering from consumption brought into a healthy household, infecting first a brother, who slept with him, and then his sisters, who were engaged nursing him; while his four remaining brothers, who came little into contact with him, escaped. The presumption of contagion seems strong.

CLINICAL MEMORANDA.

PICRIC ACID AS A TEST IN URINE CONTAINING QUININE.

THAT picric acid is an extremely delicate test for albumen, there can be no doubt in the mind of any one who has given it a trial; and we are much indebted to Dr. George Johnson for its introduction, especially as the mode of application is so simple. I wish here to notice a few points with reference to the reaction of the test in the urine of those who are taking quinine; this has been noticed by Dr. J. F. Nicholson, in the *Lancet* of November last, and alluded to by Dr. G. Johnson in his lecture, and also in the *JOURNAL* of January 19th, where he replies to a criticism of Drs. Cook and Watkins. It seems, however, to have been regarded rather as an exceptional occurrence, and only to arise in cases where large doses are taken, as in ague. Some weeks ago, I was examining for albumen the urine of a phthisical young lady; with the heat and nitric acid tests I obtained a negative result; on trying picric acid, I was somewhat surprised to find a milky opalescence, dissipated, however, by heat. The patient having a cavity at the left apex, my first idea was that peptones were present, and gave rise to the turbidity; but, on testing with Fehling's solution, the colour-indication was not obtained. I now remembered the fact of quinine (of which my patient was taking a grain and a half thrice daily) giving rise to similar turbidity, but had not anticipated that such would be the case with small doses. I therefore experimented first with a solution of sulphate of quinine in normal urine, and found that a recognisable opalescence was produced by the addition of picric acid to a solution of one-fortieth of a grain of quinine to an ounce of urine. I now proceeded to try the internal administration, and took two grains at 11 A.M.; at 2 P.M. there was no reaction with picric acid; at 4 P.M. two more grains were taken, and at 6 P.M. the urine passed showed faint opalescence in the upper portion of the test-tube; after standing a while, some urates settled at the bottom of the tube, coloured by the picric acid; at 9 P.M. a third dose of two grains was taken, and an hour later there was very marked opalescence; similarly next morning in the urine passed at 7 o'clock. It is not remarkable that such should be the case, when it is considered that about two-thirds of the quinine swallowed is believed to pass off in the urine, its excretion commencing half an hour from the commencement, and continuing two or three days, though some of it may appear in the urine in a different form from that in which it is taken. With these facts in view, it is well to be on the look-out as to whether patients are taking quinine, especially as many prescribe it for themselves without seeking medical advice; the dissipation by heat of course readily distinguishes it from an albuminous turbidity; and it is here merely noticed as an interesting chemical fact, which must be of common occurrence. The other alkaloids in common use, e.g., morphia, atropia, and strychnia, do not react nearly so readily as quinine with picric acid; and, their medical dose being small, it is impossible for them to present this characteristic in the urine.

With reference to peptones, I have no personal experience; but I can endorse Dr. George Johnson's opinion, that picric acid is a much more delicate test than Fehling's solution, having found that an exceedingly dilute solution of peptones yielded a distinct opalescence with picric acid, which solution had to be increased to five times the strength before the characteristic colour with Fehling's solution could be detected.

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THERAPEUTIC MEMORANDA.

ALUM IN WHOOPING-COUGH.

A CORRESPONDENT, writing on this subject, draws attention to the use of alum, and solicits the experience of the profession. This is a very old and efficient remedy in many parts of the world, as well with the profession as the public. It was the first I ever used; and still, after a fair trial of most drugs, I like it best. It may be given immediately after the cessation of the catarrhal stage, for which small doses of aconite answer best; in fact, as soon as ever the distinctive cough has appeared. I generally give it as follows, though at the same time I should like to say that the belladonna is by no means a necessary addition:—℞ Aluminis sulph. gr. ii; tinct. belladonnæ ℥iij to v; tinct. cinchonæ ℥xii; syrupi aurantii ℥ss; aquam ad ℥iij. M. This is given three or four times a day for a child of four