Cases of Typhoid Fever in the Insane.* By R. Percy Smith, M.D., M.R.C.P., Assistant Medical Officer, Bethlem Hospital.

The following cases of typhoid fever have occurred recently in Bethlem Hospital. The first was an isolated case, occurring in the summer of 1885, in a female patient who had been eleven weeks in the hospital, the source of infection not being clear, although at that time drainage-defects undoubtedly existed. The other cases occurred in the autumn of 1886; they all arose within a few days of one another; the patients were all females, and at the time of attack were in the same ward on the ground floor. All apparently originated from a local drainage-defect, and one attendant suffered at the same The origin of the disease in food or water-supply would appear to be negatived by its limitation to one ward, in which there was undoubtedly an escape of sewer gas, possibly emanating from an old cesspit infected by the evacuations from the first case, although there was an interval of more than a year between that case and the next. The epidemic has led to a thorough overhaul of the drainage of the hospital, and practically the relaying of a great part of it.

I shall give a brief summary of each case, and then append a few remarks.

Case 1.—F. W. B., et. 28, single, governess; admitted into Bethlem Hospital June 1st, 1885, suffering from an attack of acute mania of three weeks' duration.

She had had two previous attacks of insanity, in each of which she was depressed, but she had never been under certificates before. She was at first playful, excited, and restless, singing, dancing about, and decorating herself with flowers and leaves; but about the beginning of August became noisy, violent, and using foul language. On August 15th she menstruated for the first time since admission, and then complained of great headache, and became much quieter. The bowels were confined. Four days later she was sick in the morning, and had general abdominal pain and tenderness. The temperature was found to be 102° F. She also had epistaxis, and was slightly deaf, and had some diarrhesa. She passed through a mild attack of typhoid fever, the temperature reaching 104° F. during the second week of the disease, and becoming normal both morning and evening by September 12th,

* Read at the Quarterly Meeting of the Medico-Psychological Association, held at Bethlem Hospital, February 23rd, 1887.

the duration of the attack being between three and four weeks,

and there being no complications.

With regard to the mental condition of the patient, with the onset of the fever the excitability and violence disappeared almost suddenly; there was no delirium associated with the attack, but she became sleepy and quiet, and was perfectly tractable and manageable. The excitement did not return with the abatement of the fever, and she was soon sent to the Convalescent Hospital. She subsequently passed through a rather prolonged period of dulness and apathy, from which, however, she eventually recovered.

Case 2.—M. A. S., widow, æt. 41; admitted December 7th, 1885, suffering from acute mania, following the death of her husband and of a favourite child. She had had a previous attack at the age of 20. She was extremely violent, noisy, and destructive on admission, and although her general condition improved somewhat, as a result of plenty of food, she remained for eleven months one of the most troublesome cases in the hospital, her excitement not yielding to hyoscyamine, bromide of potassium, or chloral

hydrate.

On November 19th, 1886, nearly twelve months from her admission, she complained of some pain in her left side, and it was remarked that she had looked rather ill for two or three days. She had become much more manageable, although still incoherent and deluded. Her temperature was found to be 103° F., and she had some crepitation at the base of the left lung. At first the case was regarded as one of commencing pneumonia, but the persistence of high temperature, with a morning fall and evening rise, and the non-development of any further lung-signs, except slight general rhonchi and crepitation, led one to suspect typhoid fever. There was now no difficulty whatever in keeping her in bed, and she had quite ceased to be destructive or dirty. During the first week her temperature reached 104° nearly every evening, and the maniacal excitement had been replaced by a drowsy condition, with periods of restless, quietly talkative delirium.

Spots appeared at the end of the first week.

During the second week there was a great deal of abdominal pain, tenderness, and distension, with some retching, associated with small, feeble pulse and a rather rapid fall of temperature, but no diarrhess. Her condition gave considerable anxiety as to the onset of peritonitis, but she was kept under the influence of morphia, and the serious symptoms disappeared. Her temperature finally became normal, both morning and evening, early in the third week after she was first noticed to be ill, except for a rise a week later, lasting two days, and associated with pains in the elbows and knees. The bowels were confined throughout, and had to be moved by enemata every three days. For the first week after the abatement of the fever she was quiet, talked fairly rationally about her illness, and attributed it to the death of her

husband and child; the improvement, however, only lasted a few days, and she again became noisy, destructive, and sleepless, and by the end of December had become as bad as ever.

She was finally discharged uncured, and went to a County

Asylum.

Case 3.—B. A., et. 20, single, no occupation; admitted October 21st, 1886, with a first attack of acute mania, lasting ten weeks before admission, and attributed to a sudden cessation of the catamenia from bathing in the sea. She was slightly deaf as the result of an attack of scarlet fever in 1880, during which she was very delirious and excited. On admission she was very excited, incoherent, violent, and destructive. She remained in this condition for a month, and on November 20th she was noticed to be quiet and rather out of sorts. Her tongue was furred, and she complained of some giddiness, and was more deaf than on admission. She had some discharge from the left ear.

Her temperature was found to be elevated, and slight general rhonchi were heard over both lungs. She became quiet and rational from the first onset of the fever, and gave no trouble at all. Spots appeared at the end of the first week. The bowels were slightly relaxed, and the only cause for anxiety in her attack was the very abundant crepitation which existed all over both lungs for about a fortnight. The temperature during the first two weeks ranged between 102° and 104° F., and during the succeeding week came down in the typical manner. In a month from

the onset of the attack she was convalescent.

During the period of high temperature she wandered somewhat at night, but she passed the greater part of the twenty-fours in sleep, and had no manical excitement, and after the abatement of the fever she remained well mentally.

She menstruated on January 3rd for the first time since admission. She has been to our convalescent home, and has to-day been discharged "recovered," looking fat and perfectly well.

Case 4.—S. B., æt. 37, deaconess; admitted January 28, 1886, with an attack of melancholia lasting fourteen days, characterized by great restlessness and agitation, religious doubts, self-accusation, and refusal of food. She improved very little, and by the middle of November the only change was that she was taking food fairly well, was fatter than on admission, and not quite so restless, occupying herself with needlework, &c.

Two or three days after the commencement of the attacks of typhoid fever in the cases just narrated, it was noticed that her appetite had failed, and that she was much less agitated, and talked less about her delusions. She complained of feeling ill, and her temperature was found to be elevated. She passed through a mild attack of typhoid, not attended by diarrhoea or lung complication, but associated with considerable abdominal

pain and tenderness. In a fortnight her temperature was normal both morning and evening.

During the attack she was perfectly quiet, had no agitation, and recognized that she had had delusions, and seemed to remain fairly well mentally till the end of the year, one month from the onset of the febrile symptoms.

Early in January, however, she became restless and miserable again, and finally relapsed into her old condition, and was even-

tually discharged uncured.

Case 5.—M. A. F., et. 47; single, no occupation; admitted January 26, 1886, with a first attack of melancholia, with delusions of being watched by policemen and others, and hallucinations of hearing, suicidal attempts, and refusal of food. The attack followed the death of her mother.

By the middle of November she was practically unchanged. On December 4th she had slight sore throat and abdominal pain, was sick, and had some diarrhoea. At the end of the second week of the fever the temperature became normal for two days, and then a relapse followed lasting three weeks. There was some diarrhea, principally towards the end of the relapse, but this was easily controlled by starch and opium enemata. Persistent vomiting about the same period gave considerable anxiety. With regard to the mental condition it may simply be remarked that there was no improvement whatever. During the whole attack she was obstinately resistive to everything that was done for her, was constantly trying to get out of bed, and even when the temperature was at its highest utterly failed to realize that she was at all ill. This condition of course gave us considerable anxiety, as the quiet so essential in the treatment of typhoid fever was absolutely unattainable in her case, even in spite of the administration of sedatives and narcotics, and the relapse was probably due to this constant restlessness, for no solid food had been given before its occurrence. However, she became convalescent at the end of five weeks from the onset of the fever, as far as that was concerned, but remained mentally in the same condition as on admission. She has since been discharged uncured. I think her recovery from typhoid fever may be fairly attributed to the very great care displayed by those who nursed her, for she certainly was a most unfavourable subject for an attack of a disease beset with so many

Case 6.—E. J. P., æt. 27, single, dressmaker; admitted July 20th, 1886, with a second attack of melancholia lasting ten days. She had practically been unstable from October, 1885, and had been in Bethlem Hospital from then till June, 1886. The existing attack had followed her sudden discharge from employment, and she was restless, suspicious, depressed, and had been wandering about Highgate Ponds with suicidal intent. She passed into an almost stuporous condition, refusing food, and

being always wet and dirty in habits, and frequently grovelled on the floor, never speaking or taking interest in surroundings.

In the middle of November her head was shaved for the purpose of blistering the scalp, but she improved slightly after the shaving, so the application of any blistering material was deferred. In ten days she was much better, and was taking food well, and

gaining flesh and looking brighter.

On December 2nd she was sick, and complained of pain in the right iliac fossa. Her temperature was elevated for only a few days, but the chart was characteristic of the end of a mild attack of typhoid fever, and she was treated for that disease. Had it not been for the other cases occurring in the same ward, the possibility of her having a mild attack of typhoid might have escaped recognition. She had no diarrhea, but her tongue resembled that common in typhoid fever, and she had abdominal pain lasting some days. The mental improvement which had begun before the febrile process was discovered progressed, and seemed intensified by it, and she is now at our convalescent home remaining perfectly well.

Remarks.—In reviewing these cases one may first note the difficulty sometimes experienced in detecting diseases of this nature in the insane, the patient frequently making little or no complaint until noticed to be looking ill or to be losing

appetite or to be manifestly feverish.

Secondly, with regard to the alteration in the mental condition with the onset of a fever the matter is referred to in the works of Griesinger, Ball, and Bucknill and Tuke, and Dr. Campbell, now superintendent of the Murthly Asylum, reported twenty-two cases occurring at the Durham County Asylum in the "Journal of Mental Science" for July, 1882.

It may be summarized briefly that in two cases (No. 1 and No. 3) a definite, sudden abatement of maniacal symptoms appeared concurrently with the onset of the fever, and the mania did not recur. In Case 1 the attack was followed by a certain amount of temporary depression, but this was in all probability due to the patient's unstable nervous system, and was not quite the same as the alteration of mental condition sometimes seen in the sane after an attack of typhoid. This is rendered the more probable as she had had two previous atacks of insanity.

In Case 3 it is interesting to note that the patient had previously had an almost maniacal delirium during an attack

of scarlet fever.

In one other case (No. 6) the patient had entered upon mental convalescence before the discovery of any febrile process, but the mental improvement progressed concurrently with the latter and was certainly not delayed by it.

In the remaining three cases (Nos. 2, 4, and 5) there was

no permanent benefit.

In Case 2, however, the maniacal excitement, which would have been a source of real danger to the patient, happily abated during the fever, thus rendering her treatment comparatively easy; and in this case it was interesting to notice the quieter delirium of typhoid fever replacing the intense excitement she laboured under before.

In Case 4 there was merely a temporary remission of the depression the patient suffered from, and there was no

delirium during the fever.

Case 5 was the most anxious one in consequence of the extreme restlessness and obstinate resistance of the patient during the whole of the attack, and, as remarked before, there was no mental improvement whatever. Why this occurred in this case only is not very apparent. It may, perhaps, be looked upon as unnecessary to report these cases, as the fact of remission or cure of mental disease is such a common occurrence in association with the development of physical disease; but I am not aware that any good explanation has yet been given of the reason of this, although the fact is referred to in nearly all works on Insanity, and, therefore, it can hardly be superfluous to report cases where a common cause acts upon patients mentally diseased. It may be remarked that two of the patients (Nos. 2 and 4) had previously during their stay in the hospital suffered from local inflammations, the one an abscess in the temporal region and the other suppuration of some severity about one finger, but with no mental improvement.

At present typhoid fever is too dangerous a disease to the patient to suggest that it should be administered medicinally. Perhaps at some future date, when the specific fevers have been rendered manageable, acute attacks of insanity may be cured by inoculation. All that can be said at present is that in some cases of insanity an attack of typhoid fever appears

to cut short the mental disease.

It may be remarked finally that only those cases which one would have expected to get well under any circumstances actually did recover; the others were looked upon as in all probability cases which would be of very long duration even if eventually recovering.