

tions cause constipation, colic, and general abdominal discomfort, show a melancholia of the deepest and most persistent character, and usually have a most piteous, anxious expression of countenance, and rarely are for any length of time free from this, or from the melancholic symptoms.

CASE III.—In this case I long suspected cancer of the stomach. We know that in old women scirrhus may kill very slowly, and I myself have known a scirrhus tumour of the breast to exist for more than 16 years. I believe it most likely that the cancer began about the time the patient's delusion about rats gnawing her stomach first appeared in 1882, three years previous to death. Of course it is well known that physical disease may really be the starting point of what appears to a casual observer a ridiculous delusion. Numerous cases which have come under my observation, many of them cancerous tumours of abdominal organs, have been, I am well aware, the real cause and origin of delusions.

CASE IV.—The appearance, symptoms, and age of the patient, and the course of the disease, were so similar to what is found in cancer of stomach, that a much more experienced physician than I am might readily have assumed, as I did, that cancer of the stomach existed.

The post-mortem cleared the matter up. The altered blood vomit was from the recent ulcer, and no doubt the stricture was the cause of the pain and increasing emaciation.

In my reading I have not come across a report of such a case as this, though I know that such cases have been recorded. I think it more than probable that the whole train of mental symptoms originated and was continued by the bodily disease and want of nutriment.

Lead-Poisoning, with Mental and Nervous Disorders. By
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In the Journal for July, 1880, several groups of cases were recorded by Dr. Savage and others, including myself, on insanity and other disorders of the nervous system, resulting from the poisonous action of lead. The following note may be regarded as supplementary to my contribution to that series of articles.

Quite recently three cases of lead-poisoning were under my care in the Royal Infirmary of this city, all being inmates of

the same ward at the same time. However, only two of them need be referred to here, as in the third patient there were no nervous symptoms, the disturbance being entirely confined to the abdominal organs. Both of the others were packers in the warehouses of dyeworks, where yarn is dyed different colours. Arsenic as well as lead enters into the composition of the dye stuffs. It seems that much fine dust is thrown off from the yarn in the process of packing, and this is inhaled to some extent by the workers; their hands are also constantly soiled by it. If the statement of one of the girls is to be credited, there had been gross carelessness on the part at least of one of the masters in not taking ordinary precautions to prevent the injurious action of these dangerous ingredients of the dyes on the employées.

The most serious case was that of Margaret I., aged 14. She was admitted on 14th December, 1885. Her mother stated that patient had been employed in a dyework since June last, but that on two or three occasions during that time she had to stop work for some days on account of sickness and vomiting. A more than usually severe attack of this kind set in about three weeks before being brought to the Infirmary, and did not subside till two days after admission. Headache had also been very troublesome during the present illness, and mind began to wander two days ago. Menstruation had occurred at 13, and had been regular till she went to her present work, since which it had not appeared. Family medical history was good.

State on admission.—She talked quite incoherently, and was very noisy, crying out at the top of her voice. She did not recognise her mother, and was evidently unconscious of her position. She was carried into the ward, being unable to stand; still there was no palsy, as she moved her arms and legs freely. There was a distinct blue line on the margin of the gums. Pulse was 72, weak; temperature 98° F.; bowels constipated. In summarising the entries in the journal respecting her progress, it will suffice to say that noisy incoherence—in fact delirium—continued for about five weeks, and she disturbed her fellow-patients greatly, even though in a side-room apart from others. She required to be fed, and her evacuations were passed in bed. During the first six weeks of her residence the temperature was generally subnormal, ranging from 97° to 97·4 in the morning, and 97·5 to 98° in the evening. It soon became evident that both sight and hearing were materially affected. Slowly she became calmer, and reason returned about two months after her illness set in. Hearing is also greatly improved, and now (4th March) she hears when addressed in a moderately loud tone of voice. Sight, it is feared, is irretrievably lost. About a month after admission

my friend Dr. F. Fergus, an ophthalmic specialist, succeeded, under much difficulty, in making an ophthalmoscopic examination of the eyes, when he reported that both optic discs were in a state of white atrophy, and since she became rational I have satisfied myself that this condition is very marked. The line of treatment has been of an ordinary kind. For the first few days great care was required to prevent the patient from sinking through exhaustion; fluid nutriment, with alcoholic stimulants, were administered at brief intervals, and external heat was applied. At the same time it was sought to eliminate the lead from her system by the administration of saline laxatives and iodide of potassium. Bromide of potassium as a calmative, and paraldehyde as a hypnotic, have also been given, and counter-irritation applied to the scalp by cantharides.

CASE II.—Jane I., aged 20; admitted 20th December, 1885. Since the beginning of last summer patient has been employed in a dyework, in the same department as Margaret I., though in a different work. She has been in indifferent health while so occupied, complaining often of gastric disturbance and constipation. Four days before admission, while suffering from such symptoms, she was seized with convulsions, and within two hours had six fits. Three other fits occurred during the first week of her residence, but no more before her dismissal, about a month afterwards. The convulsive movements were stated to be more severe on the left than the right side; unconsciousness was complete while they lasted. Intelligence was good in the intervals, and there was no emotional weakness. She complained at first of headache, as well as of severe pain in the stomach and bowels; the blue line on the gums was well marked. Dr. Fergus found "both nerves oval and pale, but not markedly atrophic; thinning of the choroid round the margin of both discs. On the left side there is a distinct band of thinned choroid extending up and out along the vessels. In the eye the pigment is disturbed in its distribution, and the entire fundus is mottled with distinct white spots at several places, particularly towards the periphery." The vision of this eye was weak and limited in an upward direction. On re-examining the eyes before dismissal Dr. Fergus did not find any improvement in the condition of the left one.

Remarks.—It will be observed that the mental derangement in Margaret I. was more of the character of delirium than of ordinary insanity. It was not, however, a febrile delirium, as the temperature was in general subnormal during her illness. The question suggests itself: What was the condition of the brain during the existence of the delirium? The state of the temperature precludes the supposition that there was an inflammatory condition, at least of an acute kind present.

A direct irritation of the cerebral substance by the particles of lead carried to it by the circulating blood, with a consequent disturbance of its functions, seems the most probable explanation. The further question arises: How far may we regard the state of the optic nerves as indicative of the condition of the brain, and particularly of the convolutions? In neither patient did the morbid changes in the eyes give much support to the idea that there was or had been neuro-retinitis; the appearance of the optic discs in Margaret I.'s case rather pointed to a primary atrophy of the nerves. Still, as fully three weeks elapsed after the commencement of the cerebral symptoms before it was practicable to make an ophthalmoscopic examination, possibly an inflammation may have existed and subsided, and the inflammatory products may have also been absorbed, leaving only a progressive wasting of the nerve. However, assuming that the wasting is primary, is it to be regarded as a descending morbid action extending from the centres in the brain with which the nerve is connected, either those in the upper basal ganglia or in the convolutions? If this be so, as is not improbable, the condition would be somewhat similar to what exists in progressive muscular atrophy, where, along with disease of the multipolar cells in the anterior cornu of the spinal cord, there is atrophy of the associated motor nerve fibres, as well as wasting of the muscles to which they are distributed. The mental recovery favours the idea that the hemispherical ganglia have not suffered, and the probable central lesion is therefore in the thalamus opticus, and other parts of the lower order of ganglia with which the optic nerve is connected. It is interesting to note that the restoration of the sense of hearing and of soundness of mind advanced nearly *pari passu*.

Cure of Insanity by Removal of a Beard in a Woman. By
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Mental disorder of a very simple kind may be often traced to the frequent repetition of some slight cause of irritation, the repetition having the most injurious effect. The effect of a constant or constantly recurring cause of disturbance may be seen to produce not only the simpler forms of mental disorder, but may also be recognised as a true cause of the gravest form of nervous disease. The mind may be upset, just as the temper may be ruined, by slight domestic worries; and this disturbance of mind may be followed by disease of the brain. In my ex-