NOTES OF A REMARKABLE CASE OF POISONING BY LEAVES OF YEW.*

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E. L., FEMALE, aged 41, was admitted into the asylum on June 14th, 1875, having been already under treatment for two years in the Northampton Asylum. She was noted as labouring under chronic melancholia, with dementia. She was thin and not strong, but suffering from no bodily disease. On September 1st, there is the following note:—"Much the same; troublesome in regard to her food. She requires careful watching, as she wastes and hides it. Far from strong." Three months after, there is the note:—"Is a good deal better. Looks stouter and stronger. Takes her food well. Mind unchanged: much demented. Dirty in her habits. Seldom speaks, and does nothing."

She remained in this state till February 1st in this year. On the morning of that day, she appeared to be in her usual health, and made a good breakfast. About eleven o'clock, she went out into the airing court for a short time, with other patients and two nurses. Between eleven and twelve, I visited the ward myself, and found all as usual. Very shortly afterwards, I was summoned out of another ward to see E. L., who, it was stated, had been suddenly taken ill. The nurse noticed her half lying on the day-room floor (which she had a habit of doing), and asked her to get up. The patient said she was not well; she was very faint. The nurse assisted her up, saw she was faint, laid her on a sofa, and went for me. I found the woman lying on her back on a sofa, apparently in a faint. Her face was pale, eyes shut, and pulse almost imperceptible. Her head was laid low, and a small quantity of whisky and water put into her mouth; this was swallowed readily. In a moment or two, she revived somewhat, became conscious and able to speak. She said she felt very faint. In a few minutes, she became worse again. She became unconscious, and at the same time the facial muscles were convulsed, chiefly on the left side, the head itself being drawn to that side. The eyes were thrown up, and the pupils contracted. The arms were also drawn up, and there was general restlessness. The facial convulsions were similar to those in an epileptic fit, and ended in a few minutes in frothing at the mouth and stertorous breathing. A short period of quiescence ensued, and of semi-consciousness. The heart's action continued very weak, and the extremities were cold. Friction was employed to them and over the heart. In a few minutes more, another convulsive seizure took place similar in its features, and these were repeated three or four times, with short intervals. Consciousness never returned; the action of the heart became weaker and weaker; the respiration became very slow, with long intervals; and the woman finally died within an hour from the time when she was first found to be ill.

The symptoms were somewhat anomalous, but they seemed to point to some cerebral effusion, probably near the medulla. At the *post mortem* examination, however, made about twenty hours after death, no organic disease was found to account for death. The brain generally was actively congested, as well as the membranes. The sinuses and veins were filled with dark liquid blood, and this condition also existed in the large systemic veins. The internal organs seemed all healthy, but venously congested. On opening the stomach, it was found to contain a small quantity of green-tinted watery fluid, a small quantity of leaves, and six or seven small seeds mixed with some glairy mucus. There was no food in the stomach. There were a few patches of moderate congestion. The leaves were of two different kinds. They were carefully removed, suspended in water, separated, and then dried. The smaller portion of the leaves (weighing five grains) consisted of yew. There were many of them entire, all quite fresh, and apparently had not been long in the stomach. The remainder (weighing eleven grains) were fragments of holly leaves. These were much more broken up, but also appeared fresh. The seeds were those of holly. The duodenum contained some green-tinted fluid, and was somewhat congested. In it were found two yew-leaves only. The upper portion of the small intestine was also somewhat congested, but contained no leaves.

REMARKS.—Although this, I think, must be regarded as a case of poisoning by yew-leaves, in the absence of any other adequate cause of death, yet the nature of the symptoms and the rapidly fatal result seem out of all proportion to the amount of leaves and the short time they appeared to have been in the stomach. The recorded cases of poisoning by yew are not numerous, and information on the subject is scanty. Christison states, in his work on *Poisons*, on the authority of Orfila,

that large doses both of the leaves and berries had little or no effect on dogs or horses. It took two ounces of the juice of the leaves to kill a small dog, and thirty-six grains of extract of the leaves, injected into the jugular vein, caused giddiness, stupor, and death. In the case of a large dog, three ounces of the juice of the leaves merely caused vomiting, and in another a decoction of twelve ounces of leaves had no effect. Accidental poisoning has several times occurred in children through eating the berries of the yew; but in these large quantities were eaten. The symptoms were vomiting, purging, coma, convulsions, dilated pupils, hurried respiration, a small pulse, and cold skin. In some of the fatal cases, death ensued in from two to four hours; but in one the child survived nineteen days, and died from the effects of severe inflammation of the bowels. A case is recorded in which three children died from the effects of a tablespoonful of the fresh leaves of yew administered to each as a vermifuge. The time they survived is not stated.

Taylor, in his *Medical Jurisprudence*, quotes the following case, which is the nearest approaching to ours which I can find.

"In March 1845, a case was reported to the Dublin Pathological Society by Dr. Mollan, in which a lunatic had died from the effects produced by yew-leaves. The deceased was observed chewing the plant, probably from that perversion of appetite so commonly observed in insanity, and, before the attendants had taken it from him, he had succeeded in swallowing a portion of the masticated juice (*sic*). He was soon afterwards seized with giddiness, spasms, and irregular action of the heart. He died in fourteen hours. On inspection, the stomach was found much distended. It contained some yew-leaves. There was emphysema in the submucous tissue, but no other abnormal change."

The precise quantity of leaves, it will be observed, is not given. Taylor says: "There is no doubt that the yew is a cerebro-spinal poison; the symptoms produced by the leaves and berries are pretty uniform in character: convulsions, insensibility, coma, dilated pupils, pale countenance, small pulse, and cold extremities, are the most prominent. Vomiting and purging are also observed among the symptoms." Some little time ago, a female patient in the Shrewsbury Asylum died from the effects of eating a quantity of yew-leaves. In this case, the woman must have eaten the leaves in the course of the afternoon, or, at all events, gathered them. She appeared well when she went to bed at 7.30, and was found dead in bed in the morning. At the *post mortem* examination, the stomach and intestines were found to be enormously distended. There were several patches of congestion on the inner surface of the stomach, and near the pylorus a small quantity of yew-leaves. The duodenum contained a few of the leaves, and was very red; but the rest of the small intestine was loaded with the yew-leaves, congested in patches, and softened.

The symptoms in these recorded cases seem to correspond in the essential points, viz., convulsions, with insensibility and great weakening of the action of the heart, with those observed in our case. But there are peculiarities in the latter worthy of special remark, and making the case quite unique among those hitherto recorded.

These peculiarities are as follow:

1. The very small quantity of the leaves which had been swallowed. I think the holly-leaves and seeds may be dismissed as inert. By careful separation, only five grains in all were obtained; and the total quantity taken cannot much have exceeded this. Either, therefore, yew is, in some cases at any rate, a much more powerful poison than is generally supposed, or there must have been in this case some special idiosyncrasy similar to what some individuals exhibit in regard to opium and other powerful drugs.

2. The short time which the leaves appear to have been in the stomach, the rapid development of the symptoms, with a quickly fatal result. The woman had breakfasted about eight o'clock. Had she eaten the leaves shortly after this, or while the food was still in the stomach, the leaves would have become mixed with the food, and, unless vomiting had occurred, would mostly have passed with the food into the duodenum. But there was no food found in the stomach, while nearly all the leaves were still in it. The inference, therefore, is, that the leaves could not have been eaten before ten o'clock, and this is quite in accordance with the whole fresh state in which they were found. The holly-leaves were more broken up; no doubt from more chewing being needed before they could easily be swallowed. In the Shrewsbury case, it will be recollected that nearly all the leaves had passed from the stomach through the duodenum into the small intestines, and one meal, at any rate, intervened between the eating the leaves and the woman's death.

3. The total absence of vomiting or other evidence of gastric or intestinal irritation. Probably this was due to the small quantity and the short lapse of time. This shows, too, that the chief poisonous action of yew is a specific one, exercised immediately through the

* Read before the East Cheshire Medical Association.

nervous system, and that the irritant symptoms observed in other cases were secondary, and probably due to mechanical irritation.

4. What was the precise mode of death in this case? The sudden faintness, depression, and symptoms of collapse, with great weakening of the heart's action, seem to point to shock to the vaso-motor system as the most likely *modus operandi*. The evidence of shock was undoubted, and also that interference with the action of the heart was the first marked symptom, and preceded any cerebral or convulsive symptoms. It seems, indeed, a fair inference to assume that the latter were mainly due to congestion, owing to obstructed return of blood to the heart, partly through failure of the latter, but probably mainly through impaired vaso-motor power in the vessels themselves. A further point might be raised, viz., whether it is possible or likely that the symptoms could have been due to direct irritation of the nerves of the stomach, and thus affecting the heart through the inhibitory action of the vagus. If this were admitted as possible, the fragments of holly-leaves would assume greater importance; for the sharp spicula of these leaves, of which there were a number, might cause such direct irritation. I merely throw out this idea, which many may think fanciful; but, if my memory serve me right, there are cases on record in which the amount of constitutional disturbance caused by a sharp-pointed body in the stomach has been out of all proportion to the cause, and could only be accounted for in some such way as I have suggested.

5. To sum up, there can be little doubt that, extraordinary as it may seem, this woman did die from the effects of eating this very small quantity of leaves; that the symptoms were mainly those of shock or collapse, and that these were either due to a specific poisonous action, or possibly to direct irritation.

From the point of view of asylum practice, the case forcibly illustrates the dangerous consequences which at any time may result from that perversion of appetite which exists in certain cases among the insane, leading them to eat anything and everything which comes in their way. Many anomalous symptoms are, I believe, often due to this cause. In the case of E. L., the existence of this propensity had not been observed before; but, even if it had, I know no morbid habit among the insane more difficult to eradicate, or the indulgence of which it is more difficult always to prevent. That there was any intentional suicidal purpose in this case, it is hardly necessary to discuss. Although at an early period of the case a suicidal tendency was feared, none such had manifested itself during the patient's residence here; and, even if it had, it is in the highest degree improbable that a patient of her class would adopt such a method of carrying out a suicidal intention; still more so, that she would have limited herself to such a small quantity.

ON SOME FORMS OF IDIOPATHIC PERITONITIS.*

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PERITONITIS is so frequently traumatic in its origin, or comes on during the course of other diseases, that its existence as a primary affection, like pleurisy, is often ignored, or very briefly alluded to by most authors. The peculiar form of peritonitis to which I wish to call attention mostly arises from cold; it is generally subacute, and sometimes latent in its character, and speedily causes effusion of serum into the abdominal cavity. This complaint often bears a great resemblance to the latent forms of pleurisy not uncommon in children and young persons; in which, after exposure to cold or damp, the patient complains of slight pain in one side, followed by shortness of breathing; and, upon examination, one pleural cavity is found full of fluid.

The early inflammatory stage in this affection of the peritoneum is sometimes so slight, that it is altogether overlooked, and the enlargement of the body is the first symptom of disease that attracts the attention either of the patient or his medical attendant. These attacks have sometimes been designated active ascites; and Sir Thos. Watson, in the latest edition of his *Lectures*, goes so far as to say that he thinks they may arise without any inflammation of the peritoneum at all, and are rather forms of simple inflammatory dropsy, arising from checked excretion of fluid from the skin by cold.

There is no doubt, however, that the effusion of serum into the peritoneal cavity in these cases is as much the result of inflammation of the peritoneum as the pouring out of fluid into the pleural sac is the result of pleurisy; for, by careful observation, cases may be found in which the characteristic symptoms of peritonitis may be noted of vary-

ing degrees of intensity: from some in which they are of quite an acute character to others in which they are exceedingly slight, but in all of which the termination is the same, by rapid effusion. I saw a young woman a few weeks ago, with Dr. Byrne of Horton, who had suffered last year from acute pleurisy, and complained, when I saw her, of abdominal pain increased upon pressure, with frequent vomiting, etc. Her temperature was high, her pulse quick, and her abdomen half full of fluid. She had been exposed to wet and cold a few days before the attack came on, and, though a delicate girl, had been in good general health since the attack of pleurisy.

This case, which was quickly relieved, will illustrate the more acute varieties of the affection; and I will briefly mention another as an example of the most latent forms. An active man, about forty years of age, called at my house to consult me respecting a considerable enlargement of his abdomen, which had come on during the previous two or three weeks without pain. His general health was fairly good, and he was able to walk about and attend to his business. Upon examination, I found his abdomen full of fluid. There were no symptoms of disease of his liver or other internal organs, and the only cause he could assign for the complaint was exposure to cold. He quickly and permanently recovered.

In these forms of peritonitis, the inflammatory process seems to be principally or entirely confined to the parietal part of the peritoneum; it is also often of a latent character; it speedily causes effusion, and is mostly curable. I have always met with it in adults. It must not be confounded with the tubercular forms of peritonitis which commonly occur in children, are very chronic in their character, and very intractable.

In conclusion, I may say that I have found mercury the best remedy in these cases. In the purely latent forms, I have been in the habit of prescribing small doses of the bichloride with some demulcent. One-twentieth of a grain three times a day is sufficient. It may be continued for two or three weeks or more, if necessary. In the more acute cases, I direct the abdomen to be covered with dilute mercurial ointment spread thickly upon lint, and generally find that the ascitic fluid begins to be absorbed as soon as the mercury slightly affects the system. Digitalis with other diuretics may also assist the cure. In the more chronic forms, where the abdomen has become much distended, I have found it sometimes desirable to let off the fluid by tapping; after which operation the remedies will act more readily, and generally prevent the return of the effusion.

LITHOTOMY IN INDIA.

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It may, perhaps, interest surgeons who deal with vesical calculus, if I place on record, for the sake of the credit of lateral lithotomy, the results of my experience. From the commencement of 1868 to the present time, I have performed the lateral operation on 199 persons with only 6 deaths, *i. e.*, 3.01 per cent., or 1 in 33. To these I will add two fatal cases of lithotripsy in old men with much diseased urinary organs, who would probably have died under lithotomy if that procedure had been selected, for the stones were above crushing size, and the health unfavourable. These raise the mortality to 3.92 per cent., or 1 in 25.

The accompanying table shows my cases, with deaths at various ages. I am glad to see that Surgeon-Major Harris (Bengal Medical Establishment), in his recent work, shows that the deaths from lithotomy among children in Bengal, so far as his knowledge extends, were only 1 in 27, a result which nearly coincides with mine. In England, the mortality during the same period of life appears, from Sir Henry Thompson's table, to be 1 in 15; so that our Indian success is not entirely due to a small mortality in our younger patients.

Ages.	No of Cases.	No. of Deaths.	Percentage of Deaths.	Proportion of Deaths.
15 and under	147	5	3.4	1 in 29
16 to 35	35	None	None	None
Above 35	17	1	5.8	1 in 17
Totals	199	6	3.01	1 in 33

It is true that juveniles composed nearly 74 per cent. of my own, and only 56 per cent. of Sir H. Thompson's series; but this of course only tends to lessen the general death-rate, not that of children.

Of my own success I have no explanation to offer; and cannot, in this short paper, enter into those statistical details which are necessary for

* Read before the Annual Meeting of the Yorkshire Branch.