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CASE OF STRYCHNIA-POISONING,

AND

RECOVERY UNDER TREATMENT WITH CALABAR BEAN AND CHLOROFORM,

BY

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FROM THE "GLASGOW MEDICAL JOURNAL," AUGUST, 1871.

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ON the 15th August last, at 10.10 P.M., I was called on by Mr P., who said that he would like me to come quickly and see his servant maid, who, he thought, was either mad or dying. I went at once, and found the girl in bed in a prone posture, and in a state of tetanic spasm. On making examination, the smallest touch induced powerful spasmodic convulsions; in fact, a condition ending in complete Emprosthotonos. Her eyes stared wildly, her pupils were dilated, jaws firmly closed, respiration difficult and laborious, pulse very quick. The paroxysms returned every 30 or 40 seconds. During the paroxysms she seemed inclined to turn on her side, and the violence with which the jaws closed was suggestive of the action of a rat-trap. On the accession of each paroxysm she howled fearfully, and so loudly that neighbours above and below on the same stair were kept in a state of terror for several hours. Her cries seemed slightly to precede the muscular contraction. During the short intervals, I, with difficulty, elicited the information that she had taken Vermin killer, with suicidal intent, and also that she did not wish to recover. From the symptoms I had no difficulty in concluding that the poison had been some form of strychnia. I at once mixed a table-spoonful of mustard, with a tumbler full of water, and tried to force her to swallow it. From the clenched condition of her jaws, I could only succeed in forcing a small

quantity down her throat, which was almost immediately rejected in the same state as when swallowed; and it failed to induce vomiting. I then put her under the influence of chloroform, and sent for my neighbour, Dr Niven. On his arrival at 11, seeing that the state of the jaws precluded the use of the stomach pump, we agreed to try the effect of the Calabar Bean, conjoined with the chloroform. Half a grain of the extract in the form of tincture was accordingly administered at once, and the chloroform continued, remitting it every 15 minutes or so, to examine her condition.

For an hour and a-half the paroxysms continued, though by the end of that time they were much decreased in intensity. At 12.45 the paroxysms returned with their original violence. The pupils were still dilated; the pulse 130 to 140, small and irregular. Another half-grain dose of the extract was then administered, and the chloroform continued as before. While under its influence the pulse fell to 88 full, soft, regular; but so soon as the effect of the chloroform wore off, it again mounted to 130. This was observed on each withdrawal of the anæsthetic. While under its influence she frequently made use of the expression, "Oh! poor Bob," suggestive of some love affair having had something to do with her present situation. The chloroform was continued remittingly till two o'clock, when it was withdrawn for a short time. The pulse rose to 100, and, on touching her body, spasms were again excited, though not violently as before. She now complained of pains in the head and jaws, and expressed herself as anxious to recover. Cloths wrung out of cold water were now applied to the head, which, she said, eased the pains considerably. The pupils were now contracted, though not very much.

At 2.45 she vomited freely, and by 3.30 the spasms had almost entirely disappeared; pulse, 86, small, soft. I saw her again at 9; found her much exhausted; complained of pain in almost every part of the body, particularly the muscles of neck and jaws; feels as though she had been thrashed from head to foot. I was then able to examine her more particularly, and to obtain the following history:—

M. T., aged 20, height 4 feet 11 inches, stout, strong, and healthy looking, had come recently from the country, and been a very short time in her present situation. Since her arrival in town she had formed the acquaintance of a young tradesman, of whom she thought a great deal. His employment failing in Glasgow, he had left for some other part of the country. Since his departure she had been in very low spirits—so low that she had resolved on self-destruction. With this intent she went to a druggist's shop

and bought 4d worth of poison, which she said was to kill mice. On her arrival home she mixed the poison in a cup, by means of a spoon, with cold water, and drank it off. She then poured water on the "grounds," as she called it, and drank off every particle; and, having burned the wrappers, "went to bed to die." She had taken no food for three hours previously, and then only a spare meal of bread and tea. As nearly as I can calculate, I saw her twenty-five minutes after she had swallowed the poison. My patient recovered rapidly, and was able to be sent home in the course of next day. I have heard of her since her return to Ayrshire, and no bad results seem to have followed. To corroborate part of her statement, I went to the shop she mentioned, and found that a woman answering to her description had, at the same time she indicated, purchased two 2d packets Vermin-killer for the purpose of killing mice.

The powder similar to which she swallowed I now show you. It is in moderately fine powder, of a bluish colour; metallic taste not unlike that of sulphate of zinc, and very bitter. It mixes readily with water, is partially soluble in cold, and entirely so in boiling water. Under the microscope it appears starchy looking with admixture of small crystals, and in a regular state of division. Tests for strychnia having been applied, that substance was found to be abundant. To save the troublesome process of a quantitative analysis, the person who prepared the Vermin-killer was communicated with. He courteously replied that each six grains of the preparation contained exactly one of strychnine. Now, as two 2d packets weigh exactly 20 grains, this gives $3\frac{1}{3}$ grains strychnine as the quantity swallowed. The question here arises, Did she swallow the whole of the quantity she bought? From the circumstantial manner in which she described her process of mixing and swallowing the dregs, along with her determination to commit suicide, I have no doubt of it.

Another question may be put, Did she reject any part along with the mustard and water 35 minutes after swallowing the poison? I am of opinion that she did not; the rejected portion seemed not to have come from the stomach at all, but simply the ounce, or two at the most, of mustard and water which I had tried to force her to swallow; and the subsequent persistence of symptoms go far to confirm this.

As to the treatment, I cannot say it was strictly scientific; but the end justified the means. The urgency of symptoms was such that we used two remedies, the action of which, so far as we know, are not physiologically incompatible; but how far each individually, or both conjointly, acted

towards the end attained, I am not prepared to state. We know that strychnia destroys life by acting on the nerve centres, and producing spasmodic contraction of the muscles of both respiration and circulation; and we are aware that chloroform abolishes reflex action. Is it not then likely that the chloroform, combined with the Calabar Bean, had, so to speak, restrained the physiological action of the strychnine until it had exhausted itself, and been eliminated from the system?

DUNN AND WRIGHT, PRINTERS, GLASGOW.