

Emery (3.7.)

Report of Thirty-two Cases of
Poisoning by Locust Bark.

BY

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ATTENDING PHYSICIAN TO THE BROOKLYN ORPHAN
ASYLUM, AND TO THE GRAHAM INSTITUTE.

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IN the latter part of March of the present year there occurred a sudden outbreak of illness among the boys at the Brooklyn Orphan Asylum, which was found to be due to poisoning by chewing the inner bark of the locust-tree.

The boys had obtained this bark from the yard, where the men had been stripping fence-posts. The quantity chewed or eaten—for some of them had swallowed their cuds as well as the expressed juice—varied greatly, according to the testimony of the patients; and if their statements are to be relied upon, which I somewhat doubt, the severity of the symptoms was not always proportional to the amount chewed; as, for example, the severest cases were in those reported to have used only a moderate quantity, whereas some of the lighter cases were in those, especially among the older boys, who had partaken of a large quantity—of about the size of a man's hand.

For convenience of reporting, the thirty-two cases of

* Read before the Medical Society of the County of Kings, September 21, 1886.

poisoning will be divided into three classes, according to the severity of the symptoms.

CLASS A, CASES I and II.—These were boys eight and ten years of age, well nourished and healthy. When I first saw them, which was about an hour after the first symptoms appeared, they were lying in a stupor, being aroused with difficulty, or when vomiting and retching. Their extremities were cold and pulseless, the heart's action was feeble and intermitting, the pupils dilated, and their faces of a dusky pallor.

They were vomiting large quantities of ropy mucus mixed with blood, and complained of pain in the epigastrium. The debility was so marked as to excite apprehension for the results.

These patients were given subcarbonate of bismuth and brandy by the mouth, and morphine hypodermically. Sinapisms were applied over the stomach, and bottles of hot water along the extremities. They made good recoveries, and were discharged from the hospital in two days.

CLASS B, CASES III to VIII.—These were boys from eight to twelve years old, and presented symptoms similar to those of the first class except as to severity. The pulse was feeble, the extremities were cool, the face was alternately pale and flushed; the ejecta contained ropy mucus and blood. They were able to move about the room and make known their complaints vigorously. Their respirations were regular, while those of the first class were irregular and sighing. These patients were given a mixture containing subcarbonate of bismuth ten grains, tr. opii camph. one drachm, brandy one drachm, in aromatic water, after each vomiting. Sinapisms were also applied over their stomachs. Their improvement was rapid, and they were discharged in thirty-six hours.

CLASS C, CASES IX to XXXII.—This class of cases was of boys of the same age as the preceding class, and presented much milder symptoms—vomiting of ropy mucus without blood, pulse not affected, face flushed, complaint of dryness of the throat, pupils dilated, extremities natural, respiration regular. Treatment was the same as in the second class. They were discharged cured the following morning, with a dose of castor-oil to move

the bowels, and forcible instructions not to eat of the forbidden bark.

The symptoms of the foregoing cases were those of acro-narcotic poisoning, and lead us to the consideration of the chemical properties and physiological action of locust-tree bark, or *Robinia pseudacacia*. The literature upon the subject is meager and disappointing.

The root was examined by H. Reinsch in 1845, who found it to contain much albumin, tannin, sugar, starch, and other common vegetable principles, and *robinic acid*.

Hlasiwetz also obtained (1852) *asparagin*. Zwenger and Dronke (1861) obtained a yellow glucoside, *robinin*, which, on being boiled with acids, is resolved into sugar and *quercetin*.

Three cases of poisoning in children were reported in the "Ann. de thérapeutique," 1860, p. 64, who had eaten the root by mistake. The symptoms were like those produced by an overdose of belladonna. All three recovered, while one, who was suffering from an attack of intermittent fever, had no return of the paroxysms.

The bark of the root is said to be a tonic in small doses, and an emetic and purgative in larger doses; but I have been unable to verify the first and last statements from the literature of the subject, or from personal observation.

There have been but three recorded cases of its poisonous action, and the foregoing is offered with the view of stimulating others to report their experience with the substance.



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