

ligatures. Removed the three sutures and two of the ligatures; pulse more frequent than usual, in consequence of his feelings being much excited by his father leaving town. In all other respects he is as well as before. Slough at the bottom of his foot rapidly separating, it appears to be no deeper than the chorion—directed to continue the balsam to the foot, and take nourishing diet with porter and wine.

' 15th. Improving very much in general health—slough from the bottom of the foot came away to day—the granulations look very healthy—wound entirely healed at every part except where the ligature passes—ligature does not yet appear to be detached from the external iliac—œdema of the foot and leg mostly disappeared.

29th. Ligature from the external iliac came away to day—aneurismal tumour about half removed—ulcer on the great toe healed—that on the bottom of the foot nearly closed—general health much improved. Left the city to day for his residence in the country.

Park Place, July 1st, 1831.

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ART. XII. *Post-mortem Examination of a patient who died from the bite of a Rattlesnake, (Crotalus Horridus.)* By W. E. HORNER, M. D. Adjunct Professor of Anatomy in the University of Pennsylvania.

ADAM LAKE, aged about forty, a robust, muscular man, acting in a laborious capacity, and who, from his own account, was in the habit of drinking from half a pint to a pint of alcoholic liquors daily; on Friday, July 1st, 1831, was in a crowd collected at Fisher's tavern, in Kensington, to witness a popular exhibition of rattlesnakes confined in a cage. Lake being somewhat intoxicated, opened the door of the cage, and allowed one of the animals to creep out and ascend his bare arm; as it was going up, he caught the animal somewhat abruptly by the neck, which immediately struck at him and inflicted two small wounds. In the evening he felt some itching about the bend of his arm, and he rubbed accordingly without thinking of the snake—the itching increasing, he was induced to examine the part, and then he found a little red spot. The recollection of the rattlesnake then occurred to him, and he began to bathe the part in salt water. This not relieving him, he called upon Dr. ELKINTON, at which time the whole extremity was swollen to nearly double its size, and was very painful. Dr. Elkinton applied a dry cup over

the part which had originally itched and was bitten; it was near the cephalic vein at the bend of the arm; scarified cupping was also done in three or four places in the same region, and some ounces of blood were extracted by a repetition of the cups; the forearm was also rubbed with the terebinthinate tincture of cantharides, which produced vesication. In the course of the evening, some doses of spirit of hartshorn were administered, and also some table-spoonfuls of the expressed juice of plantain, (*Alisina plantago*), and hoarhound, (*Marubium vulgare*.)

The next morning, (July 2d, 1831,) the patient was brought to the Alms-house, about 8½ o'clock. He had vomited in the conveyance. He was sensible, and stated that the scarifications had bled much during the night; they were then bleeding freely. The arm, from the shoulder and front of the thorax to the fingers, was swollen to twice its natural size, and was very painful when moved. His pulse was almost imperceptible and thread-like, his extremities cold, he was disposed to cramp in the legs, and his debility very great. His respiration was natural and easy. His eyes were muddy and heavy; his face was somewhat bloated. Feeling the desire to go to stool, he was assisted from his bed for that purpose, but was seized, while on his way, with a general spasm, without foaming at the mouth; being laid down on the floor of the ward, it went off in a few minutes, and he there had an involuntary evacuation from the bowels, of a dark bilious colour. This occurred before I saw him. He received from the resident physician five grains of carbonate of ammonia and an ounce and a half of ol. olivarum.

Sinapisms were also applied to his ankles and breast; he was directed to take liquor volat. ammoniæ, ℥j. sp. vin. dilut. ℥ss. every two hours, and intermediately use ol. olivarum, ℥j.; of the former prescription he took two doses before he died, and one of the oil. Another application of cups over the old scarified parts was made, and the hæmorrhage from them diminished. The extremity was then enveloped in cloths dipped into ice water.

The symptoms continued stationary till 11½ A. M. he then complained of violent pain in the course of the colon, and on taking his last dose of medicine he said he felt sleepy, he closed his eyes, and in a few minutes died without agony or convulsion.

At 4 o'clock P. M. of the same day, I proceeded to examine his body, assisted by Dr. MOORE, resident pupil—in the presence of Dr. MORTON, prescribing physician, and several of the house pupils and others.

*Exterior appearance.*—Face much bloated—neck tumid and purple—extremity bitten still swollen, and also purplish in the middle—large patches of red, as is usual in the lowest part of a corpse kept on its back.

*Head.*—This was the part first opened; the incision of the scalp was followed by the flow of some ounces of black blood, and the cutting of the sinuses of the dura mater by still more, amounting probably in all to near a pint. Much of this blood I believed to have been refluxed from the heart and large blood-vessels. The tunica arachnoidea covering each hemisphere of the brain, was raised into a vesication by the deposit of serum beneath, giving it the appearance of a blister. The veins of the pia mater were much injected.

The brain had a healthy consistence; its fine blood-vessels were congested very much, and its cortical substance was of a deep brown. Wherever incisions were made into it, much serum oozed from the cut surfaces. About a drachm of transparent serum was in each lateral ventricle. The cerebellum was in the same condition with the cerebrum, having a healthy texture, but being congested. On careful examination I perceived no where any extravasation of blood in the encephalon.

The medulla spinalis was the last part examined, but it may be proper to state here its condition. Its tunica arachnoidea was somewhat turbid in places, as from some former cause. The veins of the pia mater were congested. The medulla spinalis was of an excellent consistence, exhibiting an indication of perfect soundness by the facility with which it could be torn into an indefinite number of strings from one end to the other.

The vertebral veins were congested with blood.

The thorax presented no derangement of its viscera which seemed to result especially from the cause of death. The surface of the ventricles of the heart was covered with a large white patch, such as is well known to pathologists, and supposed to result from a slight chronic irritation, long continued. There was a hypertrophy of the left ventricle; very little blood was found in the heart; we presumed, from its fluid state, that it had run out on opening the head.

The lungs were healthy.

*Abdomen.* The peritoneum contained a few ounces of serum. The mucous membrane of the stomach was universally of a red pink colour, from the residence of blood in its fine vessels; upon close examination it was evident that this redness arose from the immense number of blood-vessels in a state of injection; this redness was not

perfectly uniform but varying in its intensity, and being also in streaks following pretty much the course of the wrinkles. There was no mollescence of this coat, no ecchymosis of it, and it contained the articles prescribed in the morning. There was but little gas in it.

The small intestines exhibited in their mucous coat patches of acute inflammation in their whole length, these patches being of a lively red and of various diameters, from six to twelve or eighteen lines, and were in close succession, especially on the jejunum. The latter had its parietes considerably thickened by an infiltration of serum, and it contained a dark bilious matter.

The colon was sound, but contracted to a small diameter, excepting its head, which contained hard fæces.

The liver was of a yellow colour and somewhat enlarged, which I attributed to his habits of life.

The muscles were universally of the colour of a patient who had died from a chronic affection, being of a brownish-yellow instead of a red or brown, as in a robust man. The tumefaction of the bitten limb arose from its infiltration with serum in the cellular and adipose tissue. Owing to the scarifications and cups we were not able to trace the bite of the snake. The blood was universally fluid, no coagulum being seen any where.