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Sidey, James Archibald. Medico-Chirurgical Society of Edinburgh. University of Glasgow. Library

#### **Publication/Creation**

Edinburgh: Sutherland and Knox, [1850]

#### **Persistent URL**

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#### **Provider**

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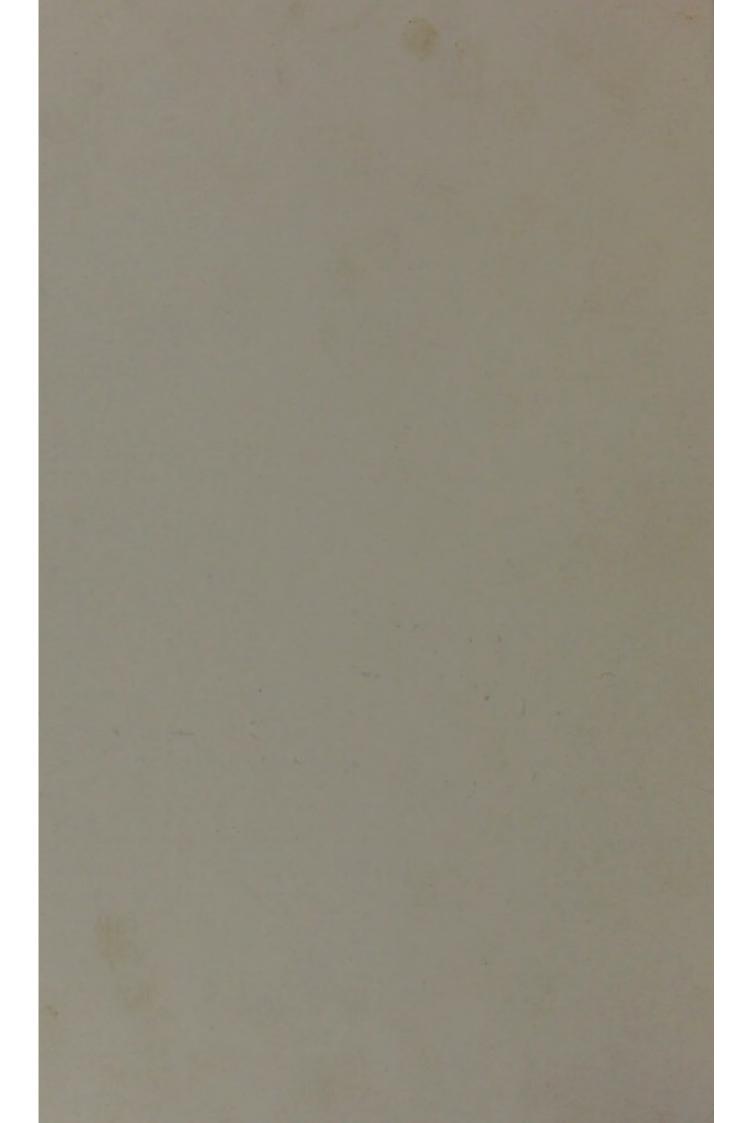
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# (19)

# CASE OF HYDROPHOBIA.

## By JAMES A. SIDEY, M.D.,

EDINBURGH.

[FROM THE MONTHLY JOURNAL OF MEDICAL SCIENCE FOR DECEMBER.]

(Read before the Medico-Chirurgical Society of Edinburgh, 20th Nov. 1850.)

George Wilson, æt. 15, was bitten on the 5th of July 1850, in the right arm, by a large Newfoundland dog. The arm was bare at the time, and the wounds inflicted were seven or eight in number; three of them were about a quarter of an inch in depth,—the others were mere superficial abrasions. There were also three slight wounds on the fingers, and one on the chin. The wounds were immediately washed, and then cauterised with nitrate of silver. Slight inflammation of the arm followed, which was subdued by poultices, and the wounds healed in about a fortnight.

At the time of the accident the dog was reported to be perfectly sound. However, on particular inquiry after the boy became affected, it was found, that on the previous night the dog had torn a great part of the door of the warehouse where he was locked up, and had also destroyed several packages of paper. It also appeared that several of the men were afraid to go near the dog that morning. The dog was unfortunately destroyed shortly after the accident.

On Friday, August 16th, the boy complained of a tingling or sleeping sensation in the cicatrices. This symptom continued on the 17th, and became accompanied with a feeling of weakness in the arm, so that he was obliged to leave work. On the 16th he had witnessed the public execution of a murderer, which had frightened

him, and greatly affected his spirits.

On Sunday, 18th, he seemed very dull and listless,—complaining still as before of the arm. He went to church in the forenoon; and, while crossing the street in going home, he gave an involuntary scream,—and on being asked what was the matter with him, he said, "he could not help it—it was the wind." In the evening, he said he did not feel well, and went to bed, asking for a draught of water, but before it could be brought to his bedside he ordered it to be taken away, as he said "it took away his breath." He passed a very restless night.

On Monday, 19th, was seen about 10 A.M. On examination, the patient had a frightened suspicious appearance. The eye very bright and clear; pupils natural, and intolerant of light; skin warm, with

considerable moisture; appetite lost; great thirst; tongue white and moist; bowels and urine natural; pulse 120, soft. The cicatrices were natural, and without any redness or swelling; the rest of the limb in every respect natural. He complained of a tightness over or across his chest, of a tingling or sleeping sensation, and weakness in the right arm, and in the back of the neck and tongue. He also complained of a feeling of general weakness.

On offering him a little milk and water, a violent spasm and difficulty of breathing came on, manifested by several quick inspirations, with difficulty of expiration. He attempted most willingly to take the fluid, but could not prevent the spasm from coming on; he then suddenly, and with a deep inspiration, seized the cup and took a little, but was immediately seized with the same train of symptoms.

The wounds were then laid freely open, and bled well to the extent of several ounces. To have five grains of calomel and a turpentine enema. Head to be shaved, and a blister to the nape of the

neck. He was also ordered ice to suck.

2 P.M.—Seems more calm; is rather easier and inclined for sleep. He has no headach, but is intolerant of noises. Says that the arm is better and not so weak. Has taken the ice freely, but with slight difficulty, and complains that his tongue sleeps when he takes anything. A gust of wind blowing on him when the door is opened causes him to sigh frequently. He feels also chilliness, although the skin is warm, and he is well covered with bed-clothes. There is a quantity of thick saliva in the mouth; bowels have been acted on; skin still moist; pulse 84. To have two grains of calomel every hour, and mustard poultices along the spine every four hours.

8 P.M.—Has been very restless and loquacious, "complains still of the wind," or any motion of the air in the room caused by a person moving. He complains also, that when a person goes near

him "it takes away his breath." Pulse 120, very small.

The wounds were again opened and bled freely. The application of the first fomentation caused a deep inspiration, but this did not continue. The wounds were then rubbed with potassa fusa. The blister to be dressed with mercurial ointment, and the axilla and groin to be rubbed with the same every four hours. To have 3j. of Battley's solution, and twenty drops of tincture of Indian hemp.

20th, 9 A.M.—Has passed a very restless night, and only slept for an hour, between four and five. Has been talking incessantly, and tossing his arms and legs about. Pulse 84, soft, and very irregular. Saliva copious and frothy, but not expectorated. Tongue still white and moist; skin moist; bowels have not been moved. He complains still of the cold air. He has taken a little porridge without much effort. To have a turpentine enema. Four issues to be made in the scalp with caustic potass.

12 A.M.—So very restless that he makes no complaint. Pulse 120, very irregular and soft; heart's action tumultuous; bowels have been moved; urine natural. Mustard poultices to the chest and feet.

5 P.M.—Continues much the same; but pulse 84, still very soft

and irregular; violent action of the heart continues. By Dr Alison's advice was bled from the arm to six ounces, and had forty drops of Battley's solution and twenty of tincture of Indian hemp.

10 P.M.—Was quieter, and did not complain so much of the cold air after being bled, but has again become restless. The other symptoms the same as before. Mustard poultices to be continued,

and to have 3ij. of Battley's solution as an injection.

12 P.M.—Is very restless, and complains of his breathing. Other symptoms much the same as before. 3j. of chloroform was poured on a handkerchief, and on his inhaling it, the anæsthetic effect was produced with great rapidity; but from the accumulation of mucus in the throat and mouth, the difficulty of breathing became so urgent, with lividity of the face, that it could not be persevered in.

21st. 6 A.M.—Has passed a very restless night, with much talking and tossing about. Is sensible, and knows his friends well, but says that one man is going to hurt him, and will not allow him to remain in the room. The features are somewhat collapsed. Pulse 120, very small; saliva copious. Has vomited about a quart of bloody frothy sputa, and seems relieved in his breathing. Has taken several pieces of sugar with brandy dropt on them, as he is still intolerant of fluids.

9 A.M.—In much the same state, but weaker; has attempted ineffectually to eat a little porridge; but has taken the sugar with

the brandy.

12 A.M.—Has continued very restless, pulse weaker. Large quantities of bloody saliva are still evacuated without expectoration. He has had a very slight convulsion. About a quarter to one, he suddenly turned on his side, and became completely insensible; and quietly breathed his last about one. He had no spasms of any kind; and the mucus continued to flow from his mouth and nose.

It may be mentioned, that the patient seemed fully aware of the nature of his malady, which was inferred, not so much from his direct statement, as from several very significant and affecting allusions.

Sectio Cadaveris, 24 hours after Death.

Present—Drs Bennett, A. Struthers, and Mr Drummond.

A considerable quantity of sanguinolent frothy mucus had, since he expired, exuded from the mouth, some of which still adhered to

the lips and face.

Head and Spinal Column.—The membranes and substance of the brain appeared to be perfectly healthy. The pons varolii and the origin of the eighth pair of nerves were examined with great care, but nothing abnormal was discernible. The three branches of the eighth pair, as well as the gray and white substance of the pons varolii and pyramidal bodies, were also examined microscopically; but all these portions of the nervous structure were healthy. The spinal cord was examined with the naked eye, as well as structurally under the microscope, without the discovery of any morbid change whatever.

Neck and Chest .- The circumvallate and fungiform papillæ at the

base of the tongue were greatly elongated and enlarged. The salivary glands were also enlarged. The mucous membrane of the fauces and upper part of the pharynx was of a purplish red colour. The membrane lining the trachea and bronchi to their ultimate ramifications was of a deep-red mahogany colour, and covered with sanguinolent frothy mucus. This mucus completely filled up the smaller bronchial ramifications. The texture of the lungs was healthy. Heart also healthy.

Abdomen.—All the abdominal organs were healthy.

## Note by Professor Bennett.

The above case is valuable, from the very clear manner in which Dr Sidey has detailed the facts connected with it, as well as from the very unequivocal nature of the case itself. The cause, progress, phenomena, and termination, can leave little doubt that this was a decided case of hydrophobia. I, therefore, took especial pains with the postmortem examination, and, in addition to the careful inspection of every organ in the body, dissected out the branches of the eighth pair of nerves on both sides for some distance down the neck, which, with their origins, were removed for further observation. Subsequently I examined different portions of their structure, and of the restiform ganglion, with a microscope, under a power of 300 diameters linear, but was unable to distinguish the slightest change from their healthy character. Several portions of the white and gray substance of the cerebrum, cerebellum, and spinal cord, were also examined with a like negative result.

I have elsewhere stated (Library of Medicine: article, "Hydrophobia,") that the experiments of physiologists on the branches of the eighth pair of nerves fully warrant the idea, that irritation at their roots would cause most of the symptoms of hydrophobia; for instance, the spasms of the pharynx and larynx, dyspnæa, secretion of frothy mucus, &c. &c. I therefore suggested that, in future, postmortem examinations should be particularly directed towards this view of the subject. The case of Dr Sidey presents us with an important fact; for, whilst all the leading symptoms of hydrophobia were present, the most minute and careful examination of the origins, roots, and trunks of those nerves, failed to discover any organic

change in them.

In the "Monthly Journal" for August 1849 (p. 1021) there are some notices of cases in which chloroform seemed to be beneficial. Theoretically, there is every reason to suppose that a diminution of the extreme sensibility which is manifested in this disease might retard its progress, and diminish the sufferings produced. In the present instance it was tried, but at the time there was such an accumulation of mucus in the air-passages, and such diminished strength, that its use could not be persevered in from fear of suffocation.



