

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

---

VOL. LXII.

THURSDAY, MAY 3, 1860.

No. 14.

---

CROUP—TRACHEOTOMY—RECOVERY.

[Reported to the Boston Society for Medical Improvement, and communicated for the Boston Medical and Surgical Journal.]

BY GEORGE HAYWARD, JR., M.D.

I WAS called, Feb. 11th, to see a male infant 14 months old, who, it was thought, had shown some symptoms of croup. The child was an uncommonly large and strong one, and appeared to be perfectly well, the evening previous, but during the night the mother thought that his breathing was peculiar, and, after watching it some time, that it had a croupy sound. An emetic of ipecac was immediately given, which operated thoroughly, bringing up a good deal of mucus, after which the child seemed to be relieved, slept well, and in the morning appeared to be so well that the parents hesitated to send for me. When I saw him, there was no lymph on the tonsils, he was free from fever, pulse and respiration were good, and it was only by making him cry that anything like a croupy sound could be heard. I directed the room to be kept as full as possible of the steam of hot water, a powder containing one grain of calomel and two of ipecac to be given then, in the afternoon, and at night, and an expectorant mixture to be given freely through the day. I saw him again in the evening, and found that he had had a very comfortable day, the breathing having been for the most part, as was reported, quite natural. I remained with him some time, but was unable to hear any sound like croup; pulse and respiration were good, there was no lymph on the tonsils, and had it not been for the alarm of the previous night, and the insidious nature of the disorder, I should have felt very little anxiety about him. During the night of Feb. 11th, the symptoms of croup returned, and were not relieved by emetics of ipecac, which were administered and operated thoroughly. I saw him early on the morning of the 12th; at that time the croupy breathing, although not constant, was decided, his pulse was quickened, and there was a slight mucous râle in both backs, but there was no

Vol. LXII.—No. 14

The Boston Medical and Surgical Journal as published by

The New England Journal of Medicine. Downloaded from nejm.org at TULANE UNIV on June 22, 2016.

For personal use only. No other uses without permission. From the NEJM Archive. Copyright © 2010 Massachusetts Medical Society.

lymph on the tonsils, and his color was perfectly natural. Dr. Hayward, Sen., saw him in consultation with me about 8½, A.M. (when he presented the appearances described above), and recommended giving him a third of a grain of calomel and one grain of Dover's powder every three hours.

I stated to the parents my wish that tracheotomy should be performed as soon as the symptoms required it, as I was satisfied it would be the best course to pursue, if the remedies then being tried failed to relieve the child; and that, to be effectual, it must be done early. They left the matter in my hands, and I accordingly saw Dr. Cabot, and agreed with him to meet me in consultation on the case at 4, P.M., but to hold himself in readiness to perform the operation at any time, should circumstances render it advisable. We also agreed to make an application to the epiglottis, with a sponge probang, of a solution of nitrate of silver, in the proportion of a drachm to the ounce.

I saw the child at 11, A.M. and 1, P.M., at which times he remained much as he had been in the morning; the breathing only occasionally croupy, and the color perfectly natural. At 2½, P.M., they sent, as I had directed, to inform me that the breathing was more difficult, and I went immediately there, calling on my way for Dr. Cabot. We found no false membrane on the tonsils, but respiration was much more difficult than when I left him, the croupy sound being constant, and there was a decided appearance of lividity of the skin. Under these circumstances, we thought that tracheotomy should no longer be delayed, and it was accordingly performed by Dr. C., and the double silver tube inserted at about 3, P.M., the patient having first been completely etherized.

Very little blood was lost during the operation, the breathing soon became easy, and the skin assumed its natural appearance. We directed that the inner tube should be taken out and carefully cleaned every hour, that fifteen drops of a solution of nitrate of silver (℥ i. to ℥ i.) should be injected through it every three hours, and that a teaspoonful of the following mixture should be given every two hours: *R. Potassæ hydriod., ℥ ij.; syr. tolu., aquæ, each ℥ ijss.* The steam was directed to be kept up constantly, as before.

Towards evening, I again met Dr. Cabot, who continued to attend the case with me until the child was out of danger. We found our patient pretty comfortable, except that he was a good deal troubled with a thick, viscid mucus, which obstructed the trachea, apparently just below the end of the tube; this was best removed by passing a small feather, taken from the inside of the wing of a goose, through the tube, and then twisting it around, and thus entangling the mucus in it and bringing it up. Beef-tea was directed to be given freely through the night, and the same treatment to be continued. This course was continued for several days, the patient being seen by me every few hours, night and day, excepting

that the injections of nitrate of silver were not given so often as before, injections of a few drops of cold water being sometimes used instead, by which means, frequently, portions of hardened mucus, and occasionally small pieces of false membrane, were coughed up; the hydriod. potassæ was also sometimes omitted. The only change of any consequence for the first week was that the child, who was teething, was very much troubled with diarrhœa; and arrow-root, and brandy and milk were frequently given it instead of beef-tea, and enemata of starch and laudanum administered.

About Feb. 20th, there were some symptoms of pneumonia in the upper part of the right lung; these continued, until there was distinct dulness on percussion, in the upper and middle part of the right lung, and, after a few days, in the upper part of the left lung also. Auscultation was rendered difficult by the sound caused by breathing through the tube being transmitted through the lung, but fine crepitous râles were occasionally heard, both by Dr. Cabot and myself. Mild sinapisms were used occasionally, and flannels wet with warm brandy were kept constantly on both chests; but very little treatment could be adopted in so young a child.

The outer tube was provided with an oval opening on its upper part, communicating with the trachea, and various attempts were made at different times, by removing the inner tube and closing the external opening, to ascertain whether the upper part of the trachea was sufficiently pervious to allow the air to pass through it, but it was not until Feb. 25th, thirteen days after the insertion of the tube, that it was thought safe to remove it altogether. No inconvenience followed the removal of the tube, the respiration being perfectly free through the trachea. On the next day, Feb. 26th, the child seemed, in the afternoon, without any apparent cause, to be very much exhausted and almost in a moribund condition, so much as to require frequent support from brandy and water, &c., but on Feb. 27th he began to improve, and from that time continued to get better, the pneumonia gradually disappearing, until he entirely recovered; the opening in the trachea closing entirely March 10th.

I have thought this case worth reporting at some length, as it seems to give evidence additional to that already adduced, of the importance of an early operation in cases of membranous croup; and because I believe it is very rare for a patient to have recovered from that disorder when it has been followed by pneumonia of both lungs.