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A CASE OF INTUBATION OF THE LARYNX OF UNUSUAL INTEREST,

WITH SOME REMARKS ON THE MANAGEMENT OF SUCH CASES.

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THE case of a girl, seven years old, of healthy German parents, was referred to me by Dr. A. A. Richardson. She had been sick for three days before my first visit—on November 29, 1893. The tonsils and pharynx were covered with false membrane; temperature, 100° F.; pulse, 112.

November 30th.—Doing well; temperature, 99·5°; pulse, 108.

December 1st.—In the morning she had a croupy cough, with some dyspnœa, which increased rapidly. I called again at 5 P. M. and found her cyanosed. The parents had called in Dr. George B. McCauliffe, whose residence was near by. He had his tubes with him, and, at my request, intubated at 6 P. M. This relieved the labored breathing and the cyanosis, but the patient was very weak. The temperature was 101°, the pulse 130, and the respiration 30. Steam inhalations were given, also calomel fumigations, twenty grains every three hours.

2d.—The patient had not recovered her strength so rapidly as I have seen in such cases, but was doing fairly well. The temperature was 101·5°, the pulse 128, and the respiration 28.

Four drops of tincture of digitalis and a grain of ammonium chloride were given every three hours, with the effect of improving the pulse.

3d.—The temperature was 99°, and the pulse 108 and of good quality.

4th.—The patient was still improving.

5th.—The temperature and the pulse were normal.

6th.—I removed the tube; the patient breathed well and there was very little spasm.

7th.—She was very comfortable and took food well.

8th.—She was still improving and continued to gain until noon, when she took cold and was attacked with bronchitis and a recurrence of croup.

13th.—There was some dyspnœa, and the use of calomel fumigations and steam inhalations was begun again.

14th.—Dyspnœa was decided and there was suprasternal and epigastric recession.

15th.—The breathing was very labored and she was cyanosed. Emetics were given, but without relief.

16th.—Dyspnœa was increasing in the morning. Wishing to postpone operating the second time as long as possible, I informed the parents as to where I could be found. I called again at noon and found the cyanosis increasing. At 4 P. M. I introduced a fresh tube. The child was in a very poor condition when it was done, and she fell asleep at once, exhausted, and slept all night, except when coughing for a minute at a time.

17th.—The color was good, the temperature 102°, the pulse 138, and the respiration 34, and there were moist râles over both lungs.

18th.—The tube was coughed out at 5 A. M. The patient was somewhat croupy, but the tube was left out.

19th.—The croup increased again, and the parents were instructed to call upon me at any hour if the breathing seemed dangerous.

20th.—The patient was cyanosed again, and intubation was performed at 10 A. M., with perfect relief.

21st.—She was very comfortable and took food well. She continued to improve until the 30th, when, at 3.40 P. M., I removed the tube for the third time. The patient breathed well for only an hour; then the croup returned and increased steadily.

31st.—In the morning the breathing was quite hard, and in the afternoon the patient was somewhat cyanosed. As she had gained some strength, I thought it safe to leave the tube out a while longer.

January 1st.—At 12.10 A. M. the father called for me and said that the child had been breathing harder since my evening visit, so he feared she would live but a short time. Twenty minutes later I intubated for the fourth time and none too soon. I did not use a gag, as there was no time to be lost, and I hardly expected the child to revive again, for she was not only cyanosed, but almost pulseless, and the eyes had the glassy appearance too familiar to men who intubate and who are often called after children are practically dead. (In January I was called to intubate, and the child stopped breathing when the jaws were opened. The tube was introduced quickly and artificial respiration was employed; this started normal respiration again, but there was only enough strength to last for a short time.) The child revived, breathed easily, and fell asleep in her father's arms after about a minute. Twenty minutes later the color was better and the pulse was improved by giving 0·01 of a grain of strychnine in thirty minims of whisky hypodermically. There was œdema of the lungs, as one would expect after a patient had been so nearly dead from inability to get air.

2d.—The lungs were clearing up, and there were râles only in the large bronchial tubes. The color was good, the pulse 130 and of fair quality, the temperature 101°, and the respiration 30. The child was allowed to drink only from a teaspoon whenever the tube was in.

3d.—The temperature was 99°, the pulse 108, and the respiration 28.

4th.—The temperature and pulse were normal. After this she was given whatever she wished to eat.

8th.—She was allowed to walk about the room, and from this time she sat at table with the family and ate what she wanted, and there was no difficulty in swallowing. She gained strength rapidly and spent her time in playing and doing fancy work.

16th.—I removed the tube again. There was still stenosis, but it was not so decided as before. Dr. Joseph O'Dwyer was present and advised me to insert the tube again before leaving, as he did not think it safe to leave it out. I introduced a fresh tube, for the old one required to be soaked in an acid solution to dissolve the rough calcareous deposit that existed on its surface. It is best, in cases requiring repeated intubation, to remove the tube at least once a week and insert a fresh, clean one if necessary. Dr. O'Dwyer advises this.

17th.—The child was very comfortable and hearty and continued to increase in strength and flesh until the 24th, when I removed the tube for the fifth time and found that the breathing was better than it had been at any time before. Two grains of Dover's powder were given two hours before the tube was removed. This is very important, as it controls the spasm which is generally present. The tube had to be inserted again two hours later, as dyspnœa had gradually returned. At this time I inserted a tube made to order by George Ermold, with a greater vertical diameter of the head, to prevent the tube from pressing on the same tissues that the old one had rested on, and thus producing a tendency to the formation of granulation tissue or to ulceration. This tube was worn until February 1st, and then it was extracted, two grains of Dover's powder having been given two hours previously. After it was out the breathing was very satisfactory, except for the spasm after coughing, which was controlled by giving two grains of Dover's powder every four hours for twenty-four hours.

February 2d.—The child was very comfortable.

3d.—She had a severe spasm at night, and the father came for me to intubate, but after an additional dose of Dover's powder she breathed well again.

For the last two weeks the child has been taking potassium iodide, from four to sixteen grains a day. It may be thought that tracheotomy would have been less troublesome in this case. I know of a case, however, in which it was done because the tube could not be introduced, yet months after the patient was finally cured by reintubations after the tracheotomy wound had healed. In another case, in which I saw tracheotomy done after the tubes had been used for a long time, the patient died of pneumonia.

The chief points of interest in this case are as follows:

1. The time that elapsed from the first introduction of the tube to its last extraction—sixty-one days. It was out fourteen days and in forty-seven. 2. After the tube had been worn for a week or two there was very little difficulty in swallowing. 3. It shows that it is important to introduce a fresh tube at least once a week. 4. The patient is now well, and the tube has been out since February 1st.