

## DIPHTHERIA CURED BY ANTITOXIN.

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AN early publication of the following case may enable some to be saved, if the result was more than a coincidence:

F. L., aged 10½ years, had on July 8th what appeared to be rather a severe form of catarrhal tonsillitis, with the glands at the angles of the jaw swollen and tender on both sides. On July 9th there was complete local evidence of diphtheria, the fauces were much more swollen, and the left tonsil was covered by thick membrane, there being less on the right. On the 10th both tonsils were very much swollen and projecting towards the middle line, and thickened so as to make a long and deep but narrow chink or channel between them, which was quite enveloped in thick yellowish white membrane, and getting blocked in front by the uvula, which was cedematous and becoming affected. At 1 p.m., July 10th, I injected subcutaneously 5 c.c. of Aronson's diphtheria antitoxin, using Debove's syringe. On the 11th the swelling was less, the whole diseased surface clearly marked off from the healthy tissues and separation had commenced. Pulse until now about 92 to 96 every morning. She felt much better. On the 12th, pulse 88. Much of the membrane separated, the remainder looks softened and breaking down, the surrounding tissues healthy, slight nasal catarrh and irritation, and a sore on the upper lip near the mouth, probably caused by the spray producer. July 13th, pulse 83; much better; throat nearly clean, one patch about the size of half a pea on the left tonsil, and a few shreds scattered about; nose nearly well. On the 14th, throat clean, glands not swollen or tender, pulse 72, child seems quite well. From the commencement I had used vigorous local treatment, with a spray of a strong solution of carbolic acid and iodine, and free doses of perchloride of iron internally, but the disease steadily advanced until July 10th, when the injection was given. The swollen state of the throat was now so bad as to very much nullify any effect the spray might have had when the diseased surface was fully exposed to its action; but the spray had hitherto utterly failed to prevent the local condition becoming very serious and typical of a very severe case. The improvement seemed to commence at once after the injection, as, twenty-four hours after, the surrounding tissues had improved considerably, and there was an evident line of demarcation where the diseased parts were already commencing to separate. I have never before seen a case in which improvement has been so rapid and so soon complete after such a continuous and dangerous increase in the local signs in spite of very thorough and energetic treatment. The antitoxin was supplied by Messrs. Zimmermann, Cross Lane, E.C.

## THREE CASES OF CONTAGIOUS PNEUMONIA.

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THE following brief notes on three cases of pneumonia which occurred in one household within fourteen days may be worthy of record.

CASE I.—On April 12th I was called to see E. P., aged 26, at 8 a.m. He had been in his usual health, and at work up to the previous evening. I found him in a state of collapse, almost pulseless, with respiration 60 per minute, temperature 101°, but cold at the extremities. Under stimulants, etc., he rallied, and it was apparent that he had pneumonia of the left lower lobe. He was nursed by his mother and sister. The disease maintained an asthenic form till he died on April 14th.

CASE II.—On April 20th his sister came to my house with a temperature of 104°, and pneumonia of the right base. She had been taken ill on the previous day. This patient made an uninterrupted recovery.

CASE III.—On April 26th I saw the mother, aged 62, a fragile woman, who was evidently sickening from the same disease. She rapidly developed an asthenic form of pneumonia, with consolidation of the left upper lobe; her temperature never exceeded 102°. She died on May 3rd.

In none of these cases were there symptoms of influenza, and the three remaining members of the household remained healthy. The sister was removed to the hospital; the two fatal cases remained at home, and were well nursed and attended to. The sanitary conditions of the house were bad; among other things the cesspool communicated directly with the house through a soil pipe which was not ventilated; the

water supply to this special closet had been cut off for months. There were no other similar cases in the district.

Out of the six members of the household the three most robust escaped. In the first case, which appeared to be the most virulent in its onset and course, no chill or predisposing cause could be discovered. The interesting problem to decide is whether the obvious insanitary condition of the house was the poisonous influence in these three cases, or whether the son was infected with the pneumonia bacillus outside his home, and his mother and sister, fatigued with nursing him, were rendered specially liable to the infection. Or again, whether sewer gas is a special predisposing cause to pneumonia and allied disorders such as diphtheria and typhoid fever.

Much depends on the solution of these questions. As pneumonia is so rarely a contagious disease in hospitals and well-drained houses, one is tempted to argue that when a series of cases is found in a markedly insanitary house, the sewer gas has some special influence, either direct or indirect, in producing the disease.

There are few things we know less about than sewer gas and its ever-varying constituents; it is time that it should be made the subject of patient investigation. The man who discovers the key to its mysteries will render as great a service to public health as Lister has done in the domain of operative surgery.

Groups of cases similar to those I have briefly recorded may help to indicate the path of research.

A CASE OF DIPHTHERIAL LARYNGITIS IN A  
CHILD 18 MONTHS OLD, IN WHICH  
TRACHEOTOMY WAS FOLLOWED  
BY RECOVERY.By LESLIE DURNO, M.D.,  
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ON first seeing E. L., a very stout male child, 18 months old; there was a large patch of diphtherial membrane on each tonsil, and the cervical glands on each side very much swollen.

Despite active treatment, both locally and generally, with generous diet and liberal supply of stimulant, the symptoms continued to get worse. On the evening of the fourth day the temperature was 102° F., pulse 130, respirations 32. The exudation had extended considerably and was gradually invading the uvula, soft palate, and pharynx. The character of the cough and breathing left little doubt that the larynx in turn was becoming involved. An efficient emetic was ordered at stated intervals, and imperative instructions given to warn me should the breathing get worse.

Responding to a hurried message on the morning of the fifth day, I found the child becoming deeply cyanosed and fighting for his breath. There was evidence of commencing congestion at the base of both lungs. Dr. A. Felix Stevens, who saw the patient along with me, agreed that tracheotomy was the only hope of saving life. The child was anaesthetised, and I proceeded with the operation at once. From the excessive turgescence of the cervical veins, the venous hæmorrhage was very profuse, but the child was almost moribund from rapidly approaching asphyxia. So naturally the question very forcibly presented itself, was it right to prolong the operation in attempting to arrest the hæmorrhage before opening the trachea? The extreme condition of the patient in my mind afforded no time to hesitate. I opened the trachea in the midst of very considerable venous hæmorrhage, turned the patient almost on to his face, and kept the tracheal opening patent with dressing forceps.

The obstruction was removed, the dyspnoea relieved, the venous tension lessened, and the hæmorrhage reduced to a minimum almost at once. A silver bivalve cannula was introduced and fixed, and the little patient replaced in his semi-canopied bed, breathing a moist, warm atmosphere impregnated with eucalyptus.

On the second day after operation the temperature was 102.5° F.; pulse 140; respirations 38. The wound, swollen and