

Dr. Sternberg, chairman of the committee, made extended researches upon the germicide power of this agent several years before (1883) the committee was appointed, and to those experiments reference is made in the first report. It is for this reason that extended experimental researches were not made with this agent in 1885. However, a number of experiments were made and recorded in our report. These show that even the solid or semi-fluid faeces of a healthy person may be sterilized by the use of the solution recommended by the committee, provided that they are broken up so as to be fairly exposed to the action of the disinfecting agent. Moreover, the fact is recorded that a certain amount of the mercurial salt remained in solution at the end of twenty-four hours, as shown by a deposit of mercury on a copper wire (exp. of Sept. 8). Yet our critic, without recording a single experimental observation of his own, states that there is not the slightest particle of evidence upon which our recommendation could have been based.

One who has given no special attention to chemistry may be pardoned for not being acquainted with the chemical nature of the albuminate of mercury, but certainly any one who had read our report could not have made the sweeping assertion which we find in Dr. Hill's criticism.

CASES OF EMPYEMA.¹

BY J. T. G. NICHOLS, M.D.

CASE I. Mrs. H., thirty-seven years old, previously well. Three months advanced in her third pregnancy. June 12, 1873, had a severe chill followed by fever and pain under the right nipple. On the eighth day of the disease the late Dr. Calvin Ellis saw her in consultation. The line of dullness extended to the middle of the scapula; the dyspnoea was moderate. The constitutional disturbance was very great, the expression dull, the tongue dry and brown, and the stomach very irritable. It was decided not to tap the chest. On the twenty-fourth day the line of dullness extended to the top of the chest behind, and to the third rib in front. The heart was not displaced, but the edge of the liver could be felt about an inch below the margin of the ribs. By the advice of Dr. Ellis the chest was aspirated and seventy-two ounces of thick odorless pus removed. The lung expanded well. On the thirtieth day the effusion was as large as before the tapping. The following day had been fixed upon as the time for making a free incision. At 10 p.m. she awoke from sleep, complaining of very severe pain at the epigastrium. She soon went into a state of collapse, with vomiting of a greenish fluid. There was no change in the line of dullness. The chest was aspirated at once and seventy ounces of thick odorless pus withdrawn. The abdomen became tender and tympanitic, but the respiration continued to be abdominal. There was no reaction, and she died at 7 p.m. of the thirty-first day, twenty-one hours from the attack of epigastric pain. An autopsy was not allowed. It is probable that death resulted from peritonitis, caused by perforation of the diaphragm, a very rare event in empyema, but one of which there are instances on record.²

The delay in evacuating the pus by a free incision was due to the conservatism which prevailed at the time this case occurred.

CASE II. A boy, nine years old, seen in consultation with Dr. Driver, of Cambridge, about twelve years ago. The chest was tapped three times, a large quantity of thick, odorless pus removed, about sixty, forty, and twenty ounces. Soon after the last operation there was expectoration of thin, watery, odorless matter containing pus cells. The boy recovered and is now a strong man, with a well-formed chest. This case shows how good a result may sometimes follow repeated aspiration.

CASE III. A delicate girl, seven years old, came under my care on December 30, 1887, by reason of the illness of her physician, Dr. Driver, of Cambridge, who reported that she had been sick for two weeks with pneumonia commencing at the apex of the right lung, and extending downwards. The constitutional symptoms were severe. The whole right side was dull, with bronchial respiration and bronchophony and moist râles at the apex of the lung. In a few days signs of effusion were evident, and on the twenty-eighth day of the disease the aspirating needle was inserted between the seventh and eighth ribs below the lower angle of the scapula, and eight ounces of thick, odorless pus removed; on the thirty-sixth day the needle was inserted in three places, but no pus was found. A copious muco-purulent expectoration appeared at once, without odor, and continued for two weeks. The child slowly but steadily improved, and she is now perfectly well, with a well-developed chest. In this case, also, the result could not have been better had a free opening been made.

CASE IV. Mrs. —, thirty-four years of age, seen in April, 1887, in consultation with Dr. Church, of Cambridge. This patient was very fat, weighing about one hundred and seventy-five pounds. Two weeks before I saw her she was taken sick with pneumonia of the right lung. A week after the sickness begun, premature labor at seven months came on. The contents of the womb were thrown off completely and without unusual loss of blood. I found the right chest full of fluid, the patient delirious and very restless, with great dyspnoea, rapid pulse, and high temperature. By aspiration, eighty ounces of odorless pus were removed. The lung expanded somewhat, and the dyspnoea was relieved, but the fever and delirium continued. In four days the aspiration was repeated, and after this the constitutional symptoms gradually improved. She was aspirated seven times, the total amount of pus removed being three hundred and sixty-seven ounces. She recovered well, and now is in good health, with but slight sinking of the walls of the chest. The condition of the patient was so alarming that we felt that the shock of even so slight an operation as cutting through the walls of the chest might prove fatal; we had also to consider the difficulty of dressing the wound in a very heavy woman who was tossing about the bed almost constantly. As the case improved it seemed best to "let well enough alone." The result amply proves the wisdom of our decision. The duration of the disease was about fourteen weeks.

CASE V. Male, thirty-five years old, provision dealer. Never very strong. Taken sick with acute

¹ Read before Boston Society for Medical Observation, Nov. 5, 1888.

² Vide Pepper. *System of Medicine*, vol. 3, p. 493.

pleurisy of the right side, July 19, 1886. On the twelfth day the dyspnoea was so great that the aspirator was used, and eighty ounces of clear serum removed, with relief to the urgent symptoms. During the month of August the fluid slowly reaccumulated. The patient was about the house, eating fairly well, but with moderate fever and sweating at night. On September 13th, the fifty-fifth day of the disease, the chest was aspirated and forty-two ounces of thick, odorless pus removed. Three days later the aspiration was repeated, and twenty ounces of pus removed. Five days later aspiration was tried without result, although the needle was introduced in five places. Ten days after this, fluctuation was noticed between the fifth and sixth ribs, about two inches to the right of the nipple. An incision was made at this spot, and about forty ounces of odorless pus escaped. A double drainage-tube was inserted, and a dressing of corrosive gauze applied. The discharge rapidly diminished, and the tubes were removed on the seventeenth day. The wound closed promptly. He is now well, with the lung expanded and a slight sinking of the chest at the site of the incision.

CASE VI. Maggie R., sixteen years old. Has worked in a laundry for two years. Menstruation began at fifteen, and continued regularly until three months ago, since which time it has not appeared. Has been losing flesh and strength for four weeks, and of late has had a cough; was first seen by a physician April 8, 1888. She then had sharp pain below the left nipple, rapid respiration, pulse 130, temperature 103° , with sonorous and sibilant râles in both lungs. Signs of effusion soon appeared, and in a short time the left side of the chest was filled with fluid, the apex beat of the heart being felt at the right margin of the sternum. I saw her in consultation with Dr. Whittemore of Cambridge, on April 14th. In addition to the physical signs above mentioned, there were coarse moist râles throughout the right lung. There was some cough, with mucopurulent expectoration. The dyspnoea was marked. An elder brother in the last stage of phthisis was in the same room with her. He died before her removal to the hospital. The chest was aspirated with a medium-sized needle; only one ounce of thin, flaky, odorless pus could be withdrawn. April 15th, aspiration was repeated with the largest needle, and two ounces of pus obtained. On the 16th she was etherized and the chest tapped with a small trocar attached to the aspirator. Sixteen ounces of pus were removed when the flow ceased. The dyspnoea was somewhat relieved and the temperature ranged lower, but the pulse continued to be very rapid. She remained at home, being about the house and occasionally out-of-doors, until June 4th, when she was admitted to the Cambridge Hospital under my care. The left side of the chest was full, the apex beat of the heart being felt half an inch to the right of the sternum. The expectoration was examined for the bacillus tuberculosis with a negative result. The pulse was 154, the respirations 40, and the temperature 99.8° . The chest was aspirated with the largest needle, and sixty-one ounces of thin pus, without odor, removed. At the latter part of the operation the fluid became bloody. June 6th the chest was opened, under ether, between the 8th and 9th ribs in the axillary line. About fif-

teen ounces of thin bloody pus escaped, odorless as before. A double rubber drainage-tube was inserted and a corrosive gauze dressing applied. A layer of mackintosh was used, after the manner described by Dr. A. T. Cabot. The valve action of the dressing was well marked. The discharge rapidly diminished, and soon lost its bloody character. July 7th it is reduced to about three ounces daily, and is without odor. She is about the ward, and out of doors when the weather is good. The lung is expanding; weight eighty-one pounds.

August 11th, menstruation has appeared. Tubes removed. Lung has expanded very well. Moderate sinking of the chest walls; weight ninety-five pounds. August 20th, wound closed. Discharged well. I have seen this patient within a month, and she continues well. This case was an unpromising one when she entered the hospital. The effusion had existed nearly two months, aspiration having failed to remove any considerable part of it. Her previous history was bad, and her home surroundings had been very unfavorable.

The following cases have been admitted to the Cambridge Hospital since its opening. They were not under my care. I give brief extracts from the records.

CASE VII. Mrs. D., forty-two years old. After three weeks' sickness, on May 6th, 1887, about seventy ounces of serous fluid were removed from the left chest by aspiration. May 25th aspiration was repeated and forty-eight ounces of pus withdrawn. Admitted to the Cambridge Hospital May 27th. June 12th, incision between seventh and eighth ribs: about sixty ounces of very offensive pus escaped, a double tube inserted, the chest having first been washed out with a weak solution of "Phenyl" corrosive gauze dressing. The chest was washed out from time to time with phenyl. The discharge was abundant, the lung did not expand and the general condition of the patient was bad. August 22nd, a second opening was made nearer the spine, between the eighth and ninth ribs. The cavity was drained better after this, but there was no improvement. September 14th she was discharged, unimproved, at her own request. She died September 30th, one hundred and ten days after the chest was opened.

CASE VIII. Robert H., forty-nine years old, coal-heaver; admitted January 11, 1888; sick six days. January 27th, aspirated; forty-eight ounces flaky pus. February 2nd, forty-eight ounces. February 6th, eighty ounces. February 14th, incision between seventh and eighth ribs: about three quarts of pus, flaky; washed out from time to time with phenyl, and chlorinated soda, the discharge being free and at times offensive. May 9th, discharged, wearing single tube, to report as an out-patient. After a short time he ceased to attend. In June he applied to Dr. J. A. Dow, who had charge of him while in the hospital. He found a small sinus discharging a little very foul pus. It was washed out with permanganate of potash, one grain to the ounce, three or four times, when it closed. The patient has been driving a coal cart for the past three months. The lung has expanded well.

CASE IX. Walter C., three years; mother and sister died of phthisis. Father a drunkard; admitted from the Avon Place Home, December 22, 1887,

where aspiration had been done, removing a few ounces of thick, flaky pus. December 24th, incision between seventh and eighth ribs, double tube inserted; washed out from time to time with phenyl and later with chlorinated soda. February 18, 1888, was discharged, still wearing a tube. He recovered well and is now in good health.

CASE X. A colored boy eight years old; admitted January 20, 1888. He wore a drainage-tube in the left chest, with free discharge of offensive pus into an oakum dressing. The chest was much sunken. It was stated that two ribs had been excised; on washing out the cavity the fluid passed into the mouth. Discharged not relieved, February 18th. He died soon after.

CASE XI. Michael M., twenty-nine years old; admitted November 3, 1887. Injured two hours before by a rod of iron two feet long and three-fourths inch in diameter, thrown with much force by the breaking of a machine. There was a wound between the tenth and eleventh ribs on the right side, admitting the finger, extending downwards and forwards about three inches. There was no emphysema; signs of effusion into the left chest gradually appeared, without great constitutional disturbance. The line of dullness extended upward to the lower angle of the scapula. November 30th, coughed up about a pint of pus, not offensive.

December 3rd, a small quantity of pus; December 4th a large quantity; December 8th about a pint. For a few days had a frothy, slightly bloody expectoration. December 22nd discharged at his own request, much relieved. He is now "as well as ever;" works regularly.

Of the eleven cases I have reported, three died.

One after two tapplings, probably from perforation of the diaphragm. One after two tapplings, and free incision; cavity did not contract. One after incision and resection of ribs; wound did not close.

Eight recovered. Three after repeated tapplings. Two of these expectorated large quantities of pus. One, without tapping, expectorating large quantities of pus. Four after tapping and free incision.

TWO DIFFICULT CASES OF BREECH PRESENTATION, WITH REMARKS.¹

BY CHARLES W. TOWNSEND, M.D.

Mrs. O., thirty-six years old, was taken in labor with her seventh child April 24, 1888, at 10 A.M., and I was called to see her by her attendant at 6 the following morning. The history of her former labors was found to be as follows: first labor, twelve years ago, instrumental, child a girl, head presentation; second child a boy, delivery instrumental, head presentation; third child a girl, also instrumental; fourth, a boy, labor normal and easy; fifth, a girl, labor normal and easy; sixth, a girl, footling presentation, labor easy.

The pains during the day of April 24th had been slight and infrequent until 3 in the afternoon, when the membranes ruptured spontaneously, after which the pains became strong and regular. At 1 o'clock the next morning, the os was fully dilated, with the exception that the anterior lip of the cervix was still to be felt. From that time till

¹ Read before the Obstetrical Society of Boston, Nov. 10, 1888.

my arrival at 6 A.M., there had been little or no progress, although the pains were strong, coming at intervals of two or three minutes, and the woman was becoming nervous and tired, although her pulse remained strong at 80. Examination at this time showed considerable edema of the vulva, with turgescence of the blood-vessels. This condition had developed during the night. On abdominal palpation the breech was found engaged at the pelvic brim, the back being on the right. The fetal heart was 142, and situated three inches above and one and a half inches to the right of the umbilicus. On vaginal examination the anterior lip of the cervix was found much swollen, caught between the presenting part and the symphysis pubis, but was easily pushed up out of the way, leaving the os fully dilated. The breech presented at the superior strait, sacrum right anterior. Both buttocks were greatly swollen, the *caput succedaneum* thus formed reaching nearly to the vulva. Pelvic measurements showed a slight general contraction, and were as follows: between spines of ilia, 9 $\frac{1}{4}$ inches; between crests, 11 inches; external conjugate, 7 $\frac{1}{4}$ inches; internal diagonal conjugate, 4 $\frac{1}{2}$ inches; height of symphysis, 1 $\frac{1}{2}$ inches, making the true conjugate about 4 inches.

The patient was etherized, and repeated attempts were made to bring the breech down into the pelvis by traction with the index finger hooked into the anterior groin, but without avail. The blunt hook was also used, but with the same lack of success, as much force being applied as was considered justifiable, a slight abrasion in the groin found after the birth of the child showing that this was the case. Miles' breech forceps were then applied three times over the sacrum and the posterior surface of the thigh, but each time slipped without advancing the breech. Dr. Edward Reynolds, who was present, and with whom I had the benefit of a consultation in the conduct of the case, then applied the forceps over the trochanters, with the same result. I then gradually inserted my right hand between the breech and the uterus, and seized and drew down the right foot, which was found just above the brim of the pelvis, the knee being flexed, and using this as a handle the breech was soon brought into the world. The arms were extended above the head, but were delivered without much difficulty. The head, however, caught at the brim, occiput to the front, and refused to come after strong tractions by the Prague and Smellie-Veit methods and suprapubic pressure. Forceps were applied, the head still being arrested at the brim, and even with their help there seemed to be no change in the position of the head. I then inserted Dr. Reynolds' axis-traction rods, and had the pleasure of feeling the head at once advance with moderate effort, much less than I had before expended unsuccessfully without the rods, and the child was speedily delivered. After mouth to mouth insufflation and artificial respiration, the child gasped, and in the course of half an hour breathed and cried naturally, and afterwards did well. It was a girl, and weighed 8 $\frac{1}{2}$ pounds.

I have narrated this case at some length, believing that it presented several points of interest for discussion, namely, the various methods for delivery in the case of an arrested breech, and also the treat-