

## Original Articles.

### A CASE OF CARIES OF THE RIBS, WITH ABSCESS OF THE CHEST.<sup>1</sup>

BY G. K. SABINE, M. D.

JOHN C., clerk, aged forty-four, married, while on his way from a Western city to the sea-shore, applied to me July 24, 1880, with the following history: His father died at the age of forty-one of membranous croup; his mother was still living and well; has four sisters, all healthy. Of four paternal uncles none lived beyond fifty years, and one or more died of phthisis.

The patient has always been temperate, and enjoyed general good health, with the exception of the usual diseases incident to childhood, until nine months ago (October 4, 1879), when he began to suffer from what his attending physician called malaria. This was characterized by severe pain for ten days in the occipital region, accompanied and followed by great prostration and fever, but no chills. At this time he was confined to the house for seven weeks, and the greater part of the time to his bed. He then returned to his work for three weeks, when he was again laid up for the same length of time with a pericardial effusion. This was accompanied by severe pain in the region of the heart. On May 19, 1880, seven months from the first attack, he was obliged to discontinue work, owing to a return of the pain in the back of the head. This, however, soon subsided, and he began to complain of severe pain beneath the left scapula, which extended through to a corresponding point on the front of the chest. When first seen he still complained of this pain. He was fairly nourished; auscultation and percussion revealed nothing abnormal. Temperature not taken. He was taking large doses of quinine, and one fourth to one half a grain of morphine at night. A continuance of the quinine, but in diminished doses, was advised, a gradual diminution of the morphine until it could be discontinued, a generous diet consisting of meat, milk, and eggs, and the left arm to be carried in a sling, as its weight seemed to increase the pain.

On the evening of September 4th, six weeks later, I was called in great haste, and found that the patient had had a slight convulsion. He had just returned from the sea-shore, where, instead of gaining, he had steadily lost ground, and the pain had increased rather than diminished. His wife drew my attention to the fact that there existed at this time a swelling at the seat of pain on the back. Upon examination a slight prominence, or rather fullness, was found between the posterior border of the scapula and the vertebral column, which was undoubtedly fluctuating. Resonance and respiration over the whole chest were normal. No cough.

I would here state that a thorough examination of the apices above the clavicles was not made.

On September 6th, two days later, the patient having been etherized, the abscess was opened, which was followed by a discharge of one ounce of healthy pus. The opening having been made too high to insure perfect drainage, a second incision was made somewhat

lower down. The pus was deeply seated, being pent up beneath the vertebral aponeurosis. The wound was at first poulticed, and afterwards syringed and dressed with tincture of myrrh. For some days the patient was confined to his bed, but was soon able to be up and about, taking quite long walks.

On October 28th, nearly two months after opening the abscess, which was still discharging quite freely, he returned west, where he resumed his clerical duties in a railroad office. He continued to work till December, although upon two or three occasions was obliged to give up for a few days. Towards the end of December he had a severe and protracted attack of diarrhoea, and a little later was much annoyed by a very painful cough, the pain being referred to the front and upper part of the chest on the left side. In April he had a second attack of diarrhoea, more severe than the first. His physician has since written me that "at this time for days he (the physician) expected at every visit to find that the patient had died." He also informed me that "the respiratory sounds over the front of the chest on both sides were remarkably clear and distinct."

I ought also to state that he discovered a communication with the interior of the chest, "as a probe could be readily passed through an opening between the ribs and carried up on the inner face of the chest wall," a condition of things which I did not discover until the autopsy.

His chief discomfort at this time arose from intense pain in the hypogastrium, apparently excited by the act of defecation. Some abnormal growth within the peritoneal cavity was suspected, as was also amyloid disease, as albumen in abundance had made its appearance in the urine.

On May 26th the patient was again brought east, being moved on a stretcher. At this time he was much emaciated, appetite poor, the abscess still discharging freely, bowels constipated; urine contained a large amount of pus, more albumen than the pus would account for, hyaline and some granular casts. The urine was neutral or slightly acid, normal in amount, of low specific gravity, and light color. There were no symptoms pointing to the lungs beyond a very slight occasional hack. Morning temperature normal, evening slightly elevated, occasionally as high as 101° F.

The pain in the hypogastrium still continued to be a prominent symptom, necessitating large doses of morphine, especially whenever the bowels were moved. On the following day, May 27th, Dr. Dwight saw him with me. Thorough examination of the abdomen and front of chest revealed nothing abnormal. Some weeks later the pus, or at least the greater portion of it, disappeared from the urine, evidence of renal disease still remaining. Considering the cough, elevation of temperature, emaciation, moderate tympanites and tenderness which appeared later, it seemed not unlikely that the patient was suffering from general tuberculosis, the peritonæum being especially involved. This at least afforded the most probable explanation for the abdominal pain.

During July and August the patient improved slightly, but during the two following months gradually failed, and died October 28th, one year and three months from the time when first seen.

Autopsy forty-eight hours after death.

Body much emaciated. Opening of original fistula opposite the fifth rib on the left side two inches from

<sup>1</sup> Read before the Boston Society for Medical Observation, January 15, 1883.

centre of vertebral column. Cicatrix of counter-opening one inch and a half lower down in the same vertical line. On opening up the fistula it was found to enter a cavity extending outwards beneath the posterior border of the scapula to the angle of the ribs, upwards to the fourth, downwards to the top of the ninth rib, and inwards to the median line. From this cavity a fistulous opening, situated between the fourth and fifth ribs, extended directly forwards into the cavity of the chest. This opening, which was not more than two lines in diameter, had smooth, sharply defined borders.

On opening the abdomen the diaphragm was found at the top of the fifth rib on the right side, and the bottom of the fourth on the left. The left lobe of the liver apparently enlarged, extending to a point nearly beneath the cartilage of the ninth rib, and upwards to the fifth rib, at a point two inches outside of the junction of the cartilage with the rib. External surface of the intestine normal in appearance. The abdominal cavity contained about eight ounces of clear serum.

On removal of the sternum the pericardium was found to contain somewhat less than one half an ounce of clear serum. Left heart contracted, right dilated. The mitral valve was slightly thickened on the edges, and barely admitted two fingers; tricuspid admitted three readily.

Right pleural sac contained about three fourths of a pint of clear serum, and the left about one fourth of a pint, which was slightly turbid.

Apex of right lung presented a firm, oblong cicatrix, one fourth of an inch deep, indicating old trouble. The anterior border of the middle and upper lobes presented small patches of recent catarrhal pneumonia. The left lung was bound to the chest walls posteriorly by firm adhesions extending from the fifth rib upwards over the apex. The upper two thirds of the lung itself was solid, owing to a recent pneumonic process.

On tearing away adhesions which bound the lung to the chest walls a circumscribed pus cavity was opened extending from the clavicle to the top of the fifth rib. The left half of the anterior surface of the first, second, third, and top of the fourth dorsal vertebræ was found carious, as was also a portion of the first, second, third, fourth, and fifth ribs. The first rib was more or less carious from a point directly under the clavicle to its head, and the remainder from their heads to about opposite the anterior border of the axillary space. The first rib was the seat of much more extensive disease than any of the others, having entirely disappeared at one point, just beneath the clavicle, only the periosteum on the upper surface remaining.

The muscles of the back were entirely separated from the diseased portions of the ribs, and the soft tissues between them destroyed, so that each was entirely surrounded by pus.

The spleen was found to be the seat of commencing amyloid degeneration. Liver healthy. Kidneys more or less fatty, and presenting here and there the characteristic reaction with iodine. Bladder normal. The lower portion of the large intestine was found to be the seat of catarrhal inflammation with slight ulcerations. Intestinal canal otherwise healthy.

To review the case: a man after a prolonged illness, supposed to be malaria, is seized with severe and persistent pain under the shoulder blade, at the seat of which, after some months, an abscess is discovered and opened. The first discharge of pus is followed by im-

provement, and that in turn by gradual failing for many months and death, owing to the condition of things stated in the record of the autopsy.

The questions that naturally arise are, first, was the original trouble malaria? It was stated that there were no chills; the patient simply had a prolonged illness accompanied by severe pain in the head, fever, and prostration. He lived in a malarious region, and such troubles are not unfrequently followed by abscesses, necroses, etc. On the other hand commencing abscesses are not unfrequently accompanied by severe constitutional symptoms, so that with the evidence it hardly seems fair to say that it was of malarial origin. Secondly, where did the trouble begin? The first rib was entirely gone at one point, while all the others were but slightly affected, being scarcely more than denuded of their periosteum, hence it is natural to suppose that the disease was of longest standing at the site of the upper rib. The question why the pus found its way down back of the lung instead of in front is rather more difficult of solution. During various periods of his illness the patient was confined to his bed, and it seems possible that the horizontal position combined with the contraction of the apex of the lung, which took place at some period, may have had the effect of giving the pus this direction. Thirdly, ought not the wound to have been treated antiseptically? Had it been suspected that the abscess communicated with the interior of the chest it would have been done, yet subsequent developments show pretty conclusively that sooner or later it would have been abandoned. Fourthly, ought not a more accurate diagnosis to have been made at the beginning? Looking back upon the case now it certainly seems so. Towards the latter part of the patient's illness his extremely weak condition did not admit of any physical examination; earlier, the catarrhal pneumonia did not exist. If when first seen the very apex of the lung, that is, that portion above the clavicle, had been carefully examined it would seem that trouble might have been discovered that would have materially affected the prognosis.

#### CASE OF SLOUGHING OF THE MUCOUS MEMBRANE OF THE BLADDER FROM CYSTITIS FOLLOWING CONFINEMENT.

BY W. J. OTIS, M. D.

THE patient, Mary A., single, aged twenty-six, primipara, from whom this specimen was obtained, was confined in the Boston Lying-in Hospital on December 27, 1880. There was nothing to remark about her labor excepting a somewhat delayed second stage, owing to the smallness and tightness of the vagina. The perinæum was torn, requiring sutures. Examination of the urine passed during labor showed the presence of albumen, hyaline and granular casts. On the second day after delivery the albumen and casts had entirely disappeared. On the evening of the third day the following symptoms appeared: high temperature, quick pulse, offensive lochia, and a mild delirium. These symptoms however disappeared after intra-uterine douches of warm water and carbolic acid 1-80.

During the first week after confinement she was catheterized as often as necessary; at first on account of her perinæum, later from retention. During this time symptoms of cystitis developed, though not marked