Case Records
of the
Massachusetts General Hospital

ANTE-MORTEM AND POST-MORTEM RECORDS AS USED IN WEEKLY CLINICO-PATHOLOGICAL EXERCISES

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CASE 10111

An American automobile mechanic of thirty-seven entered December 9 for study.

F. H. Good so far as known.

Habits. Good.

P. H. He did not remember the diseases of childhood. He broke his leg when a boy. Seven years ago he had pleurisy. Since that time he had been subject to frequent "colds." A year and a half ago sugar was found in his urine and he was placed on a diet upon which he had lost weight. Subsequent examinations proved that he had a physiological glycosuria; on leaving out excessive sweets he was sugar free. On returning to ordinary diet he gained ten pounds, but never regained his normal weight. His best weight, eight years ago, was 200 pounds; his present weight 162.

P. I. For the past year and a half he had had stiffness of the neck and pain in the back of his head which had prevented him from turning his head in any direction and made him change the character of his work. At times he was obliged to go to bed because of this pain and stiffness. Eight months ago he came to the Out-Patient Orthopedic Department. He was told no diagnosis, but was given a collar. Very little improvement followed. Six months ago he had a dry hacking cough. Six weeks before admission he began to have severe frontal headache, worse toward evening. A week ago he began to have severe muscle pains in the legs and back, as though he were coming down with grippe. He also had slight chills, and his wife thought he probably had had some fever since that time. During the week he had had unproductive cough. He had had to give up his work, and for the first day stayed in bed, though he sat up for two or three days later. For the past three days he had grown increasingly drowsy. The day of admission he became irrational. He seemed to forget words and to use incorrect words. His wife thought his speech was thick and his articulation poor.

Records of the Orthopedic Out-Patient Department, September 26, fifteen months before admission. Stiffness and swelling of the neck of six months' duration. Provisional diagnosis of tuberculous abscess of glands of neck and tuberculosis of spine involving axis. *April 28,* seven months later. X-ray showed the lower cervical and upper dorsal spine normal. Appearance of first cervical vertebra abnormal, perhaps due to position. Two later plates gave no additional information. *May 9. Tuberculosis Clinic.* Abscess tapped. 5 c.c. of thick yellow pus. Smear, broken down pus cells. No tb. or other bacteria. Culture negative.

P. E. A stalwart man, drowsy and mentally clouded, confusing his mouth with his eyes, and confused when asked to move his extremities. He complained of headache. Sensation could not be determined because of his lack of response. Mouth held rather tight. Neck stiff and painful on motion. He moved the right knee when the head was flexed. *Lungs.* Dullness, bronchial breathing and coarse râles at the left apex in front. Slight dullness, bronchial breathing and increased tactile fremitus at the left apex posteriorly. *Heart, abdomen, genitals, extremities* and *pupils* normal. *Knee-jerks* slightly increased. Kernig present. *Fundi* slightly blurred on the nasal margin, both sides. Not choked.

T. 101°-104.1°. *P.* 65-132. *R.* 20-33. *Urine.* Normal amount when recorded. Sp. gr. 1.018, 30-40 leucocytes per high power field. *Blood* normal. *Wassermann* negative. *Non-protein nitrogen* 38.1 mgm. *Sputum* very stringy. No blood or tb. *Stools* negative. *Lumbar punctures. December 9.* 10 c.c. clear colorless fluid. Initial pressure 300 mm.; after withdrawal of 5 c.c. 190 mm.; after 5 c.c. more, 130 mm. Pulse and respiration oscillations present. Jugular compression 100 mm. No block. 280 cells, 3% polynuclears, 77% lymphocytes, 20% mononuclears. Albumin +++. Globulin ++. Wassermann and gold solution negative. Total protein 200. Sugar 0.031. Pedicle found; no tb. seen in it. *December 14.* 14 c.c. very slightly turbid fluid. Hydrodynamics normal. Initial pressure 290; after withdrawal of 5 c.c. 140; after 5 c.c. more 120, after 4 c.c. more 100. 255 cells, 90% lymphocytes, 9% polynuclears, 1 large mononuclear. Scheer method, centrifuged with alcohol, no tb. bacilli found. Numerous paired cocci (contamination?). Pedicle, no tb. or other organisms. *X-ray.* Plates of the upper dorsal and lower cervical spine showed no positive evidence of disease in the vertebrae. There was, however, some slight abnormality in the relation of the sixth and seventh dorsal. Request more plates. . . . Left lung field distinctly less radiant than right. Dullness most marked at the apex, where there was complete obliteration of the lung markings. Heart and mediastinal contents displaced to the left. Diaphragm

high on the left and respiratory movements limited.

Orders. December 9. Soft solid diet. Ice bag to head. Individual precautions. $MgSO_4$ ℥ iss in the morning. December 12. Morphia gr. 1/6 s.c. twice each night p.r.n. December 13. Pyramidon gr. v. December 14, 15 and 16. Morphia gr. 1/6 to 1/4 once to every two hours p.r.n. December 16. Chloral hydrate gr. xxx with sodium bromide gr. 50 by rectum at 3 a.m. and 9 p.m.

The day of admission Dr. Lord found dullness and medium consonating and sonorous râles at the left apex.

The patient was much more comfortable after the first lumbar puncture. He had marked delirium at night, somewhat controlled by morphia, but gradually increasing after the second lumbar puncture. The headache grew rapidly worse. December 17 he died.

Discussion

by Dr. Richard C. Cabot

Notes on the History

We have in addition to the history obtained here this additional information from the Out-Patient Department that he had in his neck an abscess believed to be tuberculous, and that on some not very clear data he was believed to have tuberculosis of the axis. The rest of the history sums up in a long stiffness of the neck, evidences of infection which later seem to involve the nervous system, making us think of meningitis, and a dry hacking cough which was mentioned six months ago, but which we did not hear much of lately.

Notes on the Physical Examination

Apparently there is nothing in the lungs on the right. In the left there is pretty good evidence of pulmonary tuberculosis.

There is nothing in particular in the blood or urine.

The spinal fluid gives evidence of a chronic meningitis.

The heart and mediastinal contents were seen to be displaced to the left, as if by contraction of a phthisical lung.

The orders are not especially significant.

Differential Diagnosis

This reads like a perfectly straight case of pulmonary tuberculosis with tuberculous meningitis. Whether there is anything in the spine or not I do not feel clear.

He had a stiff neck, but he had abscess in the neck, and it is perfectly possible so far as I know that there are glandular or other masses there enough to give him stiff neck. The x-rays are negative except as far as the axis is concerned, and I do not think that anything in the axis could give him as much stiff neck as he has been having. So I do not see that we have any reason to say tuberculosis of the spine. We have I think tuberculosis in the meninges. There are no bacilli found in sputa or spinal fluid. But it is not at all unusual to find tuberculosis post mortem without any proof of it in that way. I do not see what else it can be. I do not know any disease that involves those two organs with such signs except rare diseases which we do not get here, blastomycosis and some of the other fungi that I do not know much about.

I think he died of phthisis with tuberculosis of the meninges, and of what else I do not know.

A Physician: Do you believe he had meningitis all the time he had stiff neck?

Dr. Cabot: No. I think that was due to his abscess.

A Physician: And in that abscess no tuberculosis was found?

Dr. Cabot: We should expect that.

Dr. Young: It was a sterile abscess, which usually means tuberculosis.

Dr. Cabot: It was opened in the Out-Patient Department, and I never knew them to find tuberculosis in the pus so obtained.

Clinical Diagnosis (from Hospital Record)

Tuberculous meningitis.
Chief cause of death, disseminated tuberculosis (spine and lungs).

Dr. Richard C. Cabot's Diagnosis

Tuberculous meningitis.
Pulmonary tuberculosis.

Anatomical Diagnosis

1. *Primary fatal lesions*

Chronic tuberculosis of bronchial glands and apices of lungs.
Tuberculosis of lungs with cavity formation.
Tuberculous meningitis.

2. *Secondary or terminal lesions*

Slight hypertrophy and dilatation of the heart.

3. *Historical landmarks*

Chronic pleuritis, left.

DR. RICHARDSON: The pia showed a thin slightly granular exudate along the upper part of the medulla and extending up along the pons, out the fissures of Sylvius and between the frontal lobes. The vessels of Willis, sinuses, middle ears, pineal and pituitary glands were negative. The choroid plexus was thickened and reddened. Macroscopically it was suggestive of tuberculosis of the meninges, but not very well marked. Microscopical examination showed that it was tuberculous meningitis. Not infrequently in tuberculous meningitis the evidence of exudate along the meninges is very slight. Cases are reported where it was not definite macroscopically, but microscopically it was tuberculous meningitis. That is the interesting thing here, that the lesion is so slight, yet it is tuberculous meningitis. The brain tissue was a little wet, otherwise negative.

There was nothing in the pleural cavities. The right lung showed no adhesions. The left lung was bound down by old adhesions. There was a moderate amount of dirty reddish mucus in the trachea and bronchi. Some of the bronchial glands showed obsolete tuberculosis. In the apex of the right lung was a small fibrocaseous pigmented mass thirteen mm. across. The tissue elsewhere was spongy and pale red, with no definite tubercles. The pleura over the upper third of the left lung was thickened and in the apical region there was a cavity 5½ by 4 cm. containing much purulent material. The cover glass from this material showed innumerable typical tubercle bacilli. A dilated bronchus led into the cavity. In the tissue about the cavity tubercles were scattered, and a short distance below there was a mass of fibrocaseous material, a little below that a few smaller masses, and scattered about these were smaller and larger tubercles. In the lower lobe only one small fibrocaseous nodule was found.

The heart weighed 400 grams,—slightly enlarged. The valves were negative. There was a little dilatation on the right. The coronaries and the vascular apparatus generally were negative.

The spleen weighed 125 grams, was soft, but no definite tubercles were made out.

DR. CABOT: You have no evidence on the question whether he may have had tuberculosis of the axis or any of the upper cervical vertebrae?

DR. RICHARDSON: There was nothing that we could make out.

DR. CABOT: The only other point that seems to me rather interesting is how little he coughed, according to this account, yet how much disease there was in that left lung.

CASE 10112

An American housewife of forty-three entered October 18.

F. H. Her father died of tuberculosis of the bowels, her mother of pulmonary hemorrhage.

P. H. Her cta. was painful until after the birth of her two children, aged eight and six. Her last two menstrual periods had lasted only two days. She had had occasional clear leucorrhea. At twenty-three she had grippe in the autumn. She worked hard during the winter and began to be troubled with right lower quadrant pain which lasted for seven years until her right ovary was removed and the uterus suspended twelve years before admission. Five years later her appendix was removed.

P. I. In February, a year and nine months before admission, she began to have right epigastric pain with vomiting, the attacks coming on once or twice a week and lasting one or two days, apparently without relation to food. She was told that she was a trifle yellow. In July, a year and five months later, she had an attack which lasted three weeks, requiring morphia and culminating with a "gurgling, trickling, bursting sensation in the region of the gall-bladder, as though it had got too full and broken." The pain subsided, then commenced again. From September until May she was laid up with another severe attack of pain and vomiting of light colored and very sour vomitus. Since then she had been better and had constant right epigastric pain radiating upward and around into the back. She had had short hacking cough all summer. At intervals she was somewhat dyspneic and very nervous. When in bed she could not turn on her right side on account of dragging pain.

P. E. A fairly developed, gray haired, thin, tired looking woman, decidedly nervous. *Lungs* and *heart* normal. *Abdomen* tympanitic. Two old scars of an appendix and a right rectus incision. Some tenderness low on the right. Considerable tenderness over the gall-bladder region. Moderate rigidity of the right rectus, partly voluntary. *Pelvic examination.* Perineum torn. Uterus high. Cervix torn, more on the left. Considerable tenderness and some fullness in the right upper side. *Pupils* normal. *Knee-jerks* present. *Extremities* negative.

Before operation *T.* and *R.* normal, *P.* 91-72, *urine* and *blood* not recorded.

October 23 operation was done. Next day the patient was very querulous. The temperature was only slightly elevated. October 26 she complained loudly of pain in the chest. Next day the temperature rose to 103°, the pulse to 120, the respirations to 35. Examination showed consolidation of the lower lobe of the right lung. There was slight cough and some pain in the right chest. October 29 she had some difficulty in breathing. Next day the signs included the middle lobe and October 31 the left