in the other case the spleen, liver, and lymphatic glands were markedly involved. The main lesions here were in the skin, and it is rather a typical picture of malignant lymphoma of the skin, for which the old name is mycosis fungoides.

There was deformity of the right tibia, said to be an old fracture. The left thigh was a little larger than the right. There was no definite edema.

Examination of the head showed a wet pia and wet brain tissue.

The marrow of the femur was fatty and showed here and there a few reddish areas. There was no definite infiltration of this marrow with lymphoid cells. There was some degeneration of the fat tissue of the marrow.

The retroperitoneal glands were slightly to moderately enlarged, but examination of specimens taken from the glands showed no evidence of invasion by lymphoid cells. The axillary glands were slightly enlarged, but we found no cells in them of the same nature as those in the skin.

The left pleural cavity contained 1500 c.c. of thin cloudy fluid and fibrin. There were a few adhesions on the left. The trachea and bronchi contained much muco-pus; that is, there was a purulent bronchitis. The bronchial glands except for being slightly enlarged were negative. The right lung was negative at the apex. Scattered through this lung however were areas of what for want of a better name we call suppurative pneumonia,—pneumonia gone on to suppuration. The left lung had a somewhat similar appearance and in addition to that a large abscess in the retropleural tissues which bulged into the cavity. It was 11 cm. by 3 cm. in diameter and 3 cm. deep, and contained pus.

In the anterior abdominal wall there was another collection of pus. The microscopic examination gave no hint as to whether there was any tumor tissue there or not.

The pericardium contained a little cloudy fluid and fibrin,—a slight acute pericarditis associated with the infection present here. The heart weighed 240 grams and was negative. The circulatory apparatus in general was negative.

The liver was large, 2025 grams, but we were unable to make out any infiltration with lymphoid cells. There was a little fatty metamorphosis. The spleen was slightly enlarged, 360 grams, and at one place in the tissue there seemed to be some evidence of the presence of lymphoid cells, but not very well marked,—in contradistinction to the other case, where there were many.

The kidneys microscopically looked all right, but we found one or two foci of lymphoid cells, suggesting that if he had lived longer there might have been many more. There was a little patch of hemorrhagic edematous mucosa in the bladder.

CASE 9442

A NORWEGIAN housewife of thirty-seven, entered March 29, 1910.

F. H. Her father died at fifty-eight, after being ill many years with chronic cough. She was not at home at the time.

P. H. She had the diseases of childhood, and had always been subject to colds. Last year she had "grippe and influenza."

HABITS. Good.

P. I. Four days before admission, after feeling perfectly well, she felt as though she were going to be ill. Her menstrual period began, but there was scarcely any flowing. The next day she had a very severe headache. She had vomited several times after taking medicine.

During the history taking she was dull, apathetic, wandering, and forgetful. She did not grasp questions. Her answers were irrelevant, and very slow and halting.

P. E. Fairly well nourished. Tongue, dry brown coat. Apex impulse of the *heart* not seen or felt. No enlargement to percussion. Sounds at the apex fair in quality. P_2 greater than A_2. Systolic B.P. 165. *Lungs.* Slight dullness, a few crackles and consonating râles, vocal and tactile fremitus slightly increased at both apices, front and back, with bronchovesicular breathing in front and bronchial breathing in the back; signs more marked posteriorly. *Abdomen.* Slight tenderness in the epigastrium. *Genitals* not recorded. *Extremities.* No edema. *Pupils.* Normal reactions. *Reflexes.* Knee-jerks not obtained. Double Babinski?

T. 100.7°-102°, with slight afternoon rise on three of the five days. *P.* 110-131. *R.* normal. *Urine.* ʒ 30 on the one occasion recorded. Sp. gr. 1.011-1.013. Slightly cloudy at one examination, neutral at one, alkaline at the other, a very slight trace to a trace of albumin at both. *Blood* not recorded. *Spinal fluid.* 2-3 c.c of clear colorless fluid not under increased pressure, not coagulated after fifteen hours. Two hundred leucocytes per cu. mm., 80 per cent. mononuclears, 20 per cent. polynuclears.

The morning after admission the patient was mentally clearer. Fundus examination showed considerable blurring of the edges of both discs with marked tortuosity of the vessels, and in the left eye a hemorrhage in the center of the disc.

The afternoon of April 1 the patient developed a complete left-sided hemiplegia. The white count rose to 13,000. She failed gradually, showing no new signs or symptoms, and died April 2.

Discussion

BY DR. RICHARD C. CABOT

NOTES ON THE HISTORY

Presumably she was not exposed to any tuberculosis her father may have had.

Three days' headache and vomiting is all the history before she comes here. Obviously there is cerebral trouble of some sort, but it does not sound like an acute meningitis, in which ordinarily there would be more clouding of consciousness than is here described.

NOTES ON THE PHYSICAL EXAMINATION

This lung examination should mean tuberculosis. These are the signs of solidification with bronchitis in both apices, and there is practically no other disease that does it.

We wish we could be sure about the Babinski. It would throw some light on the other condition.

The spinal fluid shows chronic meningitis, which with her lungs should spell tuberculous meningitis.

DIFFERENTIAL DIAGNOSIS

Hemiplegia in tuberculous meningitis is not unknown, but is unexpected, unusual. It makes us wonder whether we are right in guessing at that first. On the other hand, with a cerebral tumor, which she might perfectly well have, hemiplegia is not rare at all. Can this thing be a vascular affair, an arteriosclerosis with plugging or rupture of a cerebral vessel? She is young for it. The history does not sound like it, and until the hemiplegia there is nothing to suggest it. If the spinal fluid is accurately recorded she has no right to have such a spinal fluid with that or with anything except a meningitis.

On the whole, in spite of the hemiplegia, I shall stick to the original diagnosis,—tuberculosis of the lungs, tuberculous meningitis, and very probably a general miliary tuberculosis, although we do not get evidence of that ordinarily, the lesions being so small.

A Physician: What would you say about encephalitis?

Dr. Cabot: We certainly did not see it in 1910. I do not believe it occurred then, because it is such a clear picture. In this case the course is too acute, and during the time she lived she did not have the symptoms we should expect with encephalitis. The spinal fluid would go well enough. The hemiplegia is not what we expect.

A Physician: Her condition at entrance, wandering, unable to answer questions—

Dr. Cabot: That would do perfectly well, although it is not in any way distinctive. I will bet against encephalitis.

A Physician: Is a blood pressure of 165 high?

Dr. Cabot: Not for a cerebral lesion of some sort. She certainly has some cerebral lesion.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Tuberculous meningitis.
Left hemiplegia—cause?

DR. RICHARD C. CABOT'S DIAGNOSIS

Pulmonary tuberculosis.
Tuberculous meningitis.
General miliary tuberculosis?

ANATOMICAL DIAGNOSIS

1. *Primary fatal lesions*

General miliary tuberculosis.
Tuberculous meningitis.

2. *Secondary or terminal lesions*

Otitis media, left.
Small focus of caseous pneumonia, superior lobe of left lung.

3. *Historical landmarks*

Chronic pleuritis, left.

Dr. Richardson: Extending all along the base of the brain and out the fissures of Sylvius was the characteristic exudate of tuberculous meningitis,—that is, the grayish granular exudate, with sometimes in places what are apparently perfectly definite tubercles, as could be seen in this case. The brain was otherwise negative. I found no evidence for hemiplegia, no solitary tubercles, no areas of hemorrhage.

The pleural cavities were free from fluid. The pleura of the right lung showed miliary tubercles scattered over it and throughout the substance of the lung many tubercles. The left lung showed a similar condition, with a small focus of caseous pneumonia in addition. The bronchial glands were enlarged, pigmented, firm, but there was no evidence of any tuberculous lesions. In other words, the tuberculosis in this case, so far as the necropsy went, was present only in the lungs, the pleurae, and the meninges.

The circulatory apparatus in general was out of the picture. The liver showed a few tubercles here and there and one yellowish nodule. The spleen showed miliary tubercles. Nothing was found in the kidney except a few scattered tubercles in the tissue.

In the head there was otitis media on the left

side. Examination of the pus showed leucocytes and micrococci but no tubercle bacilli. I do not remember ever having seen them in the pus in the middle ear except once. This is a typical case except that it is rather unusual not to find any tuberculous lesions in the glands examined.

CASE 9443

An American schoolboy of thirteen entered May 23, 1923, complaining of pain in the right abdomen, intermittent for three days, constant for two hours.

F. H. His father had been sick with a cough all his life and had to stop work from time to time for three weeks or so.

P. H. He had had mumps, pertussis, and pleurisy, for which he was strapped, last winter. For the past winter he had had occasional fleeting shooting pain in the epigastrium on running.

P. I. May 20, after feeling "sick at his stomach" for an hour, he had sharp, colicky, crampy pain in the epigastrium, which lasted two hours. The nausea persisted throughout the night without vomiting or defecation. The next morning he felt well and went to see a doctor. He remained without symptoms until May 22, when about noon the nausea returned. He had a watery movement. After three hours of nausea he came to Boston to see a doctor, and again felt well until the following morning, when the nausea returned and he vomited material possibly streaked with blood, relieving the nausea. Since morning his throat had been sore. He ate dinner and had a loose bowel movement. Late in the afternoon he had an attack of sudden intermittent cramp-like pain in the epigastrium, shifting at the end of half an hour into the right lower quadrant. The pain persisted until just before he arrived at the hospital at half past eight.

P. E. A well-built, well-nourished, sick-looking boy with flushed skin. Throat and tonsils injected. Cervical glands enlarged. *Heart, lungs, abdomen, genitals, extremities, pupils,* and *reflexes* normal. *Rectal examination.* Tenderness high up on both sides equally.

Before operation *T.* 100.2°, *P., R.,* and *urine* not recorded, *leucocytes* 30,000.

Operation was done the day after admission. The patient made a good recovery from anesthesia and seemed to feel better the following morning. May 26, however, he was not so well. The temperature and pulse had risen to 103.4° and 140 respectively, the respirations to 40. A medical consultant excluded the respiratory tract and the heart. The abdomen was tense, the wound apparently not infected. Rectal examination showed tenderness on both sides as before. A stomach wash showed dilatation. That evening the temperature was 105.4°, the pulse not countable. He was given a subpectoral, sips of fluid and morphia. That evening he died.

Discussion

BY DR. EDWARD L. YOUNG, JR.

If every symptom that we meet in our work could at once call to mind all the possible causes for such a symptom the diagnosis would often be very much easier. In this particular case pain in the right abdomen of course can be any one of a great many things. In a boy of thirteen, where it is of acute onset, as this is, we of course think of appendicitis first. When we find in the family history that he has a father who may be afflicted with chronic phthisis we think that the boy is the age when tabes mesenterica is frequently seen. When we find from his past history that he had what was called a pleurisy that diagnosis certainly ought to intrude itself, with further thought of tuberculosis.

The story of the present illness covers three days. I do not think we ought to put much weight on the occasional shooting pains in the epigastrium which had appeared for the past year on running. Almost always the appendix pain which comes on following exertion and is merely a mild appendicular colic is in the right lower quadrant only. The symptoms as described might well be due to an acute appendicitis. The vomiting of material possibly streaked with blood and the sore throat can be and often are the result of vomiting. The thing that is most conclusive is the fact that this severe pain started in the epigastrium and then shifted to the right lower quadrant. That is always extremely suggestive of acute appendicitis.

The examination does not help us very much except that the enlarged cervical glands again suggest tuberculosis. The temperature and leucocytosis are consistent with acute appendicitis In spite of the lack of record I am sure that the urine was done and was negative, as it is a routine to do it. Likewise of course the abdominal examination was done, and it would of course help us to know what it was, but a faulty record leaves us to do the best we can without it.

It seems to me on the story we have it is acute appendicitis and should be operated on at once. Of course something in the examination which has not been put down may have justified delay. I do not think we are justified in saying anything other than acute appendicitis. Whether