Tuberculosis of the Lungs without Cough or Expectoration.

By JOSEPH WALSH, M. D.,
Philadelphia.

(Read in the Section on Medicine, Medical Society of the State of Pennsylvania, Philadelphia Session, September 28, 1909.)

REPRINTED FROM THE PENNSYLVANIA MEDICAL JOURNAL, JULY, 1910.

PRESS OF W. G. JORDAN,
ATHENS, PA.

Tuberculosis of the Lungs without Cough or Expectoration.

My attention was attracted to this subject by a recent case in the Phipps Institute in which the patient died without at any time manifesting the symptoms of cough and expectoration.

Case No. 5164. Boy, aged fourteen, was sick four months before he died. The autopsy showed in left lung a series of large cavities taking up all of the upper lobe and the upper part of the lower lobe with small tubercles scattered through the rest of the lower lobe; in the right lung large and small cavities taking up most of the upper lobe and the upper part of the lower lobe, the rest of the lower lobe and the middle lobe showed scattered small tubercles. In other words this patient with extensive cavity formation on both sides never coughed or expectorated till death.

It is perfectly evident that in this case there was at least unconscious raising of secretion and débris, because it is impossible to conceive of the large amount of material which came from the numerous large cavities being absorbed, yet the case shows that even a large amount may raise so easily that it escapes unconsciously from the larynx into the œsophagus and is swallowed without cough and expectoration resulting.

On looking for other cases I found the following at the White Haven Sanatorium:—

Case No. 1235 Female, aged twenty-five, patient of Dr. Craig, entered sanatorium November 15, 1908, and was discharged unimproved March 3, 1909. Physical signs showed infiltration of right apex, and infiltration of left lung to fifth rib with all the signs of a large cavity in the midst of the infiltration. She coughed but very little, so little that both she and the patients about her denied that she coughed at all and she never expectorated except for one week, about January 31, 1909, and although the expectoration was small in amount, it showed tubercle bacilli. In other words this patient denied cough and expectoration at a time when she had a large cavity in the left lung with general symptoms pointing to activity, like loss of weight, high temperature and rapid pulse.

These extreme cases led me to investigate the time at which cough and expectoration usually begin, since if they begin late this fact should be recognized and a diagnosis made in advance of them. In looking up the literature on cough and expectoration I found that all the text-book writers agreed that cough and expectoration sometimes begin late and sometimes do not occur even to a fatal termination of the disease.

Osler[1] says that cough is one of the earliest symptoms and is present in the majority of cases from beginning to end. Cough is not a constant symptom, however, and a patient may present himself with well-marked excavations at one apex, who will declare he has had little or no cough. So, too, there may be well-marked physical signs, dullness and moist sounds without either cough or expectoration. There are cases with well-marked local signs at one apex, with slight cough and moderately high fever without a trace of expectoration. So, also, there are instances with the most extensive consolidation (caseous pneumonia) and high fever, but without enough expectoration to enable an examination for bacilli to be made.

Fowler and Godlee[2] say that expectoration as a rule occurs early in the disease;

[1]Osler: Practice of Medicine, Seventh Edition.
[2]Fowler and Godlee: Diseases of the Lungs.

it is rarely absent when symptoms have been present for as long a period as two months. The exceptional cases include examples of miliary tuberculosis, caseous consolidation without softening, and fibroid tuberculosis.

Turban[3] says the cough may or may not be accompanied by expectoration. In tuberculosis commencing insidiously, cough as a rule precedes expectoration by months or even years.

Aufrecht, quoted by Brown,[4] believes cough is not a symptom in the initial stage but is to be looked for rather in all complications caused by laryngeal catarrh.

Brown[4] himself says that in rare cases cough is absent throughout and not very infrequently a patient is seen with a well-marked cavity whose cough has passed entirely unnoticed. Cough depends to a considerable extent upon the part affected and the nervous condition of the patient. Cough and expectoration may both increase during the menstrual period and youth as well as fever seems to increase the cough. In acute pleurisy rarely the cough may be held in check but chronic pleuritic conditions may produce a dry, hacking cough.

Looking over my private patients I found no adults without cough or expectoration, and only three children under eight without the latter in whom the diagnosis seemed assured.

Within the past two years, however, I have had the opportunity of examining thirty-five girls who considered themselves absolutely well and who had applied for admission to a sisterhood in Philadelphia. The following are the results of these examinations:—

Of these thirty-five girls, thirteen showed nothing to raise the slightest suspicion, thirteen showed physical signs allowing, at least, of doubt, and nine showed a positive tuberculosis. Of these nine, five had both cough and expectoration, one cough without expectoration, and three so far had had neither cough nor expectoration. In these last three there was a definite lesion at the right apex in one, aged eighteen, and a lesion on both sides extending to the second rib on the right and confined to the apex on the left in the other two, aged seventeen and twenty-four.

In addition, Dr. Flick has given me ten from among his last 266 cases in which cough and expectoration were absent. All were incipient cases except one which was moderately advanced. The lesions were as follows: One female, aged twenty-three, right upper lobe; one female, aged forty-five, and two males, aged thirty-two and thirty-nine, upper half of right upper lobe; one female, aged forty-five, and two males, aged thirty-two and thirty-nine, both apices; and one female, aged sixteen, and two males, aged thirty-two and thirty-seven, right apex.

Out of 497 consecutive cases in the Phipps Institute, especially studied by Montgomery[5] as to cough and expectoration, six incipient, two moderately advanced and two far-advanced cases were without cough or expectoration. Of these ten patients all except two were past the age of twenty, the ages varying from twenty to thirty-five years. The two under twenty were one, an incipient case, aged thirteen, and the other, a far-advanced case, aged ten. In addition eight other cases were without expectoration. Of these eight, three were children, one, aged nine, with a moderately advanced lesion, and two, aged ten, with incipient lesions; of the remaining five (ages varying from eighteen to forty-three) two were incipient, one was moderately advanced and two were far-advanced cases.

Montgomery also says that in seven

[3]Turban: Diagnosis of Tuberculosis of the Lungs.
[4]Brown: Osler's Modern Medicine.

[5]Montgomery: Third Annual Report of the Henry Phipps Institute.

German sanatoriums, out of 4703 cases, 421 (8.9 per cent.) had neither cough nor expectoration. In 144 cases in the first stage Roepke found cough absent in 6.2 per cent.; and expectoration absent in 22.2 per cent.

In other words, in this series of cases without cough or expectoration we have the following statistics: Ten cases of Dr. Flick's out of 266 cases of tuberculosis (3.7 per cent.); ten cases at the Phipps Institute out of 497 cases of tuberculosis (2 per cent.); three cases of my own out of nine cases of tuberculosis among thirty-five girls between the ages of eighteen and twenty-six who thought they were perfectly healthy (33⅓ per cent.).

Since our percentage of cases coming to be examined for tuberculosis not showing cough or expectoration is only from 2 to 3.7 per cent., and the German statistics are from 6.2 per cent. to 8.9 per cent., it would appear that we demand more advance for the diagnosis of tuberculosis than is demanded in Germany. It is doubtful if we are any more accurate diagnosticians than the Germans, or that patients cough and expectorate earlier in the United States, and it would, therefore, appear that we are waiting till cases are unnecessarily advanced.

Moreover, taking my own cases in persons who came for examination, thinking themselves perfectly healthy, it would seem that the percentage of cases capable of being diagnosed before cough and expectoration began was even higher than the German statistics would indicate.

Since, therefore, we are endeavoring to diagnose tuberculosis as early as possible, because every advance in the early diagnosis means so much to the patient, it is worth while realizing that at least one out of twenty (five per cent.) of the persons coming to us to be examined for tuberculosis may have the disease without either cough or expectoration and yet with sufficient symptoms and signs to diagnose it absolutely. In my own cases, besides the definite physical signs there were the symptoms of loss of weight and in two a temperature of 99.4° F. In addition to this it must be remembered that a much larger percentage fail to show expectoration, hence we should not only not wait for the finding of tubercle bacilli in the sputum in order to diagnose tuberculosis of the lungs, but should endeavor to catch it before even expectoration begins.