CASES

OF

ANOMALOUS DEVELOPMENT

OF

TUBERCLES,

COMMENCING AT THE BASE OF THE LUNG AND GRADUALLY EXTENDING UPWARD; WITH THE PHYSICAL SIGNS OF PNEUMONIA. ANALYSIS OF THE CASES: DIAGNOSIS, PROGNOSIS, PATHOLOGY, &C.

READ BEFORE THE BOSTON SOCIETY FOR MEDICAL OBSERVATION, FEBRUARY 20, 1855.

BY HENRY I. BOWDITCH, M.D.

FROM THE AMERICAN MEDICAL MONTHLY. N.Y.

NEW YORK:
EDWARD P. ALLEN, 9 SPRUCE STREET.

1855.

CASES

OF

ANOMALOUS DEVELOPMENT

OF

TUBERCLES,

COMMENCING AT THE BASE OF THE LUNG AND GRADUALLY EXTENDING UPWARD; WITH THE PHYSICAL SIGNS OF PNEUMONIA. ANALYSIS OF THE CASES: DIAGNOSIS, PROGNOSIS, PATHOLOGY, &C.

READ BEFORE THE BOSTON SOCIETY FOR MEDICAL OBSERVATION, FEBRUARY 20, 1855.

BY HENRY I. BOWDITCH, M.D.

FROM THE AMERICAN MEDICAL MONTHLY.

NEW YORK:
EDWARD P. ALLEN, 9 SPRUCE STREET.

1855.

CASES OF

Anomalous Development of Tubercles.

READ BEFORE THE BOSTON SOCIETY FOR MEDICAL OBSERVATION, FEBRUARY 20, 1855.

BY HENRY I. BOWDITCH, M.D.

[From the American Medical Monthly, July, 1855.]

Case I.—I. H., a stout young apothecary, aged 22. I saw him Jan. 2, 1842. He had had a cough for three weeks, dry at first, but for ten preceding days it had been looser, with frothy sputa. It had, however, never been very troublesome. He had been occasionally liable to "slight colds," during the preceding years, and transient pains in the chest, but he had not thought himself ill. The day before my visit he had been seized with an acute pain in the region of the heart, preceded by chilly feelings several days before, and for which he had kept the house during the greater part of the time. No distinct febrile paroxysm. No diminution of strength or flesh. He in fact considered himself as only slightly ailing, and I was summoned solely on account of the pain in the side. His digestion had been good. At my visit, he was sitting up, and looked not very ill; he had no marked dyspnœa, or any manifest sign of serious internal lesion. Pulse 96 to 100. A dull pain only

was felt on a full breath, in the left breast, *near the cardiac region;* and upon auscultation there I found *a fine crepitus râle* over a space about the size of the palm of the hand. I regarded the case as one of mild and very local pneumonia. I prescribed two leeches, to be followed by a poultice. Dover's powder and jalap.

Jan. 9th: Had improved. The crepitation had lessened somewhat. It had, however, persisted from the first moment that it was noticed, but there had *never been any hepatization,* as in pneumonia. Little or no fever; cough less; sputa easy, greenish. At times, slight transitory pains in the right chest; bowels costive.

Feb. 17th: Had been gradually getting more ill, although he had been able to walk out. On percussion in front there was a decided difference of note in favor of the right breast; fine crepitation at left; voice resonant at both apices; patient felt faint and weak. A pill of acet. morph., ipecac. and aloes was ordered; p. r. n. Patient went to the country.

March 10: Returned no better, but with all the signs of evident phthisis. Bruit de pot felé where crepitation had been heard. Dull percussion of left breast; cavernous respiration and pectoriloquy at the top of the right lung.

He continued gradually sinking, and died the last of May or first part of June.

It will be remarked that this patient, after having had occasionally simple "colds," was suddenly taken with pain in the left breast, and although there were none of the characteristic marks of pneumonia, prostration, rusty sputa, &c., the physical sign, *crepitation of a minute character, and heard towards the lower parts of the lung, lasted certainly from Jan. 2d until Feb. 17th,* and probably some days longer, and finally terminated in softening of the lung and an excavation.

Case II. Sept. 5th, 1843: A. B., dry goods seller, aged 22. Had experienced some dyspeptic symptoms for six months, and for two months had had slight cough, but no pains in the chest and no fever. He had in fact felt well enough to be engaged in his business on the afternoon of the 5th. An hour before I

saw him he had had hæmoptysis, of several sputa. No other serious symptoms.

The chest resounded well, and the respiratory murmur was everywhere heard; nowhere tubular, but at the tops of both lungs, particularly at the left, there seemed as if a mucous râle were about to be produced. Voice, slightly resonant just below the top of the left shoulder.

Pill of gr. ss. opium and 2 gr. acet. plumb. ordered.

On the following day he seemed quite well, and started for ———, on a visit to his father's house, in order to rest.

Oct. 2d, I saw him again. While at his father's he had had copious hæmoptysis, but after that regained his strength, and seemed to be improving in every respect, when, on the 27th of September, he was seized with chills and soreness of the chest, and afterward became more ill. At my visit he looked thin, his skin was cool, pulse 72, slight sweats at night, appetite lessened. Occasional cough; lying on the left side increased it; no severe paroxysms, but he hawked often; he felt very weak.

Physical signs: Rude respiration under left clavicle; a little tubular on the top of shoulder. But the most marked sign was a bronchial respiration, bronchophony, crepitous râle, and dulness on percussion throughout the *lower third of the back;* right top perfectly normal.

℞. Mist. ferri comp. f.℥ss. t. i. d.

Oct. 4th:—Cough more urgent; auscultation of back as before.

Two leeches to side, and repeat, if need be, day after to-morrow.

℞. Morph. acet., gr. iv.
Pulv. rhei., ʒss.
F. pil. xx. One night and morning.

Oct. 22: There was a slight crumpling at the apex, but the most marked sign was the fine crepitus, as before, on coughing, but no distinct bronchial respiration or bronchophony. He reported that subsequent to the last examination he became worse, and had had pains about the chest, and grew thin, but

that since he had been improving. At the time of my examination, he had scarcely any more than a simple hemming; no severe cough; less dyspnœa, though it was still decidedly manifest on going up stairs; digestion perfect; no hectics.

He was preparing to go South. This he did, and June 26, 1844, I again saw him.

He had spent six months in the pine regions of Georgia, hunting and fishing, and had at times ridden forty miles daily. During the whole period of six months he had had no trouble, save occasionally a little cough. During his passage home he began to emaciate, and felt ill. In April, a tendency to diarrhœa commenced, with oppression after food, with some slight febrile paroxysms. No dyspnœa except when lying on the left side; slight hæmoptysis after his return North, as he thought, from the fauces, which were sore, and looked varicose. He had gained flesh while at the South, which he had lost after his return.

Physical signs: Percussion everywhere good; clavicles prominent; crackling in the left breast, and back, even to the base.

I put him upon a careful semi-tonic diet, with a glass of port wine daily. Sponge bath daily.

Aug. 8th: I again met him. He had improved very much in his health, and his whole aspect was much better. He was preparing to spend another Winter in the South. *Still some fine crepitous in the lower part of the back* on coughing. He had employed Dr. Ramadge's inhaling tube with great relief; he could breathe easier after using it.

Having spent the Winter in Alabama, and thinking himself almost or quite well, he returned North in the Spring of 1845. I saw him July 30. He had attended to his business, but had always had a slight cough. In December a fistula in ano occurred. He looked paler and thinner than I had ever seen him. The physical signs had become manifest in the apex of the right lung; the whole of the left was involved, and a fine crepitus mixed at times with coarser râles, was heard in the lower two-thirds of that lung.

He died not long afterward.

This case is analogous to the preceding one. A young man,

aged 22, was seized, after having been but slightly unwell, with severe symptoms, and the *most marked physical sign*, at the second examination (and probably the same would have been found at first had a more thorough exploration been made), *was a fine crepitation heard in the lower part of the left lung*, whence the disease extended upward and to the upper part of the left lung. The physical signs, at first, were those of pure pneumonia. Yet the crepitus lasted more or less manifestly from Oct. 2, 1843, to July, 1845!

Case III.—The Rev. Mr. D., a clergyman residing in New Hampshire, aged 24,—very earnest and devoted to study. He entered my room, looking quite well, Dec. 14, 1849. His health had been good, except some aphonia during the previous Spring, which was wholly removed by the amputation of his uvula, after which he was well till three weeks before I saw him. Then he had a slight cough, preceded some weeks before with trivial, pricking, pains in the thorax, always coming on after sitting for some time, and relieved by walking. Slight sweating at night after the cough commenced. No expectoration till the day before I saw him, and then he had had a little hæmoptysis, which he thought came from the right lung. Some loss of flesh, but not of strength. His appearance on examination was that of a rather slender person, but bright and active as if not suffering from any severe disease. No apparent dyspnœa. Pulse somewhat quickened. In front, I heard indistinct bronchial respiration, and bronchophony about the third rib of the right breast, and behind the same signs were very distinct from the spine to the angle of the scapula; while *below the angle there was the most minute crepitus*, on full breath.

Though the physical signs were evidently those of pneumonia, the whole of the rational signs, their slightness,—above all, the perfectly healthy and easy appearance of the patient,—prevented me from regarding the case as one of common, acute, pneumonia. I remembered the two cases already named, and feared an acute, latent, and anomalous deposit of tubercle.

Dr. James Jackson saw the patient in consultation, and fully agreed with me. Nevertheless the physical signs were so like

pneumonia that it was determined to use an antiphlogistic course:

℞. Hyd. sub. mur. gr. 1.
Opii. gr. ¼.
Ant. Tart. gr. ⅛.

were prescribed every night. Vegetable diet.

Dec. 19th: Reported more pain in the right side,—more sputa, yellow and adhesive. Felt very weak. Respiration 28. Pulse 112.

The sub-muriate was carried to the point of producing a slight sore mouth, and all the usual treatment of pneumonia pursued without the least benefit or change except for the worse. Finally, cod liver oil was directed, about Jan. 14. Extract of lactuca ordered instead of opiates.

Jan. 21st: The report was as follows: Very great tubular respiration, between the spine and angle of the scapula; râles as before, below the angle. Dyspnœa still marked, on exertion; and pulse very quick. Otherwise he felt better, and seemed rather less emaciated. Digestion, good. Sleep, good. Cough, a little in the morning; expectoration, of a greenish hue, and very small in quantity.

Feb. 5th: Symptoms as above, except that there was more cough, but it was dry.

About this period he had a feeling of obstruction in the left ear, and it became so troublesome that I invited Dr. Clarke to see him (March 6th), who, upon a thorough examination, found no evident trouble. Glycerine was ordered, but without avail. He became weaker, daily. His cough was still slight; he had no pains in his chest; his chief trouble was a slight salivation, which he attributed to the calomel; he was more costive. No hectic.

Feb. 27th: Kept awake by slight pain in left side, at times. Generally, as before, except more emaciated, and vomited usually after food; some œdema of the legs.

℞. Morph. acet. gr. iii.
Aloes, ℥ss.
in pil. xx. 1 at night.

April 16th: *Extremely* thin: ulceration of the right cornea; cough more severe; œdema greater.

℞. Collyrium of sulph. zinc, gr. vi. ad. aq. f.℥ij.

April 20th: He died, after very little suffering, and slight cough.

During the latter part of life he felt as if the right side of the chest had died; his mind was perfect until the last moment; his expectoration was slight till the last few weeks of life, and rather by hawking than coughing; no hæmoptysis. Digestive organs, well. The ulcer of the cornea nearly deprived him of sight.

Autopsy on the 21st. Great emaciation. Right lung firmly united throughout its whole extent to the pleura costalis. Upper lobe wholly riddled by a large ragged excavation containing pus and tuberculous matter. The lower lobe had a dense feel, and on cutting it open, it presented a perfectly solid structure, containing common tuberculous matter and something that resembled chronic pneumonia. These two conditions were found in every part of the lobe; not a particle of air could be perceived. At times this gray dense substance surrounded the tubercles. Some small cavities containing pus were seen, but they did not communicate with the bronchi.

The other lung collapsed freely on raising the sternum; a few adhesions only at upper part. Generally, this lung had the healthy pink hue. At the apex were one or two gray tubercular masses. The lower lobe was diseased in a slight degree, as the lower lobe of the other lung, *i. e.*, a few tubercles with a dense structure around; no cavities containing pus.

Head—Internal ears, healthy. The abdominal organs looked healthy.

Resumé of the case. A young man was taken suddenly with slight hæmoptysis, after having been only slightly unwell. None of the rational signs of acute pneumonia, and yet the physical signs exactly corresponded with the first and second stages of that disease. Though active antiphlogistic treatment was first adopted, and subsequently the usual treatment for phthisis was followed, neither plan had any influence toward checking the onward career of the complaint. In fact, it may well be doubted whether the antiphlogistic course was not actually deleterious. Certainly I should never recommend the same again in a

like case. The physical sign of *crepitation at the lower portions of the lung* lasted over three months and a half.

Case IV.—Mr. H——, aged about 30. Not wholly well for two months, but very actively engaged as a merchant in a large jobbing house of this city. I saw him in consultation, March 25, 1854. I learned that, on a visit to New York on business, he was exposed to very severely cold weather, particularly in an open sleigh on his return. He had been chilly every night on retiring to rest. On his return to Boston, he felt as if he had taken a bad cold; he had lost his appetite, and his strength was less, although he was quite able, and determined to be at work. In a few days, however, his cough was so urgent, and his symptoms became so manifest, that by directions of the attending physician he kept at home. At my visit, I found him in bed. He had however been up, daily. His pulse was rapid; his cough, violent; his expectoration, thin, glairy, small in quantity,—never bloody; he was very nervous, and evidently much excited about himself. The physical signs were *a fine explosion of crepitus râle in the lower third of the right back*, and the respiration was less clear throughout the whole back, even at the top, *though evidently the chief obstruction was at the base.* A faint rubbing was heard on full breath. The attendant physician informed me that when the patient first called at his office, after his return from New York, he seemed like one who had been running violently, he panted so much. The physical signs were some dulness in the part above named, and sibilant and sonorous and loud mucous râles. His physician regarded the case as bronchitis, in consequence of exposure, which had gone on toward hepatization. The patient wished to go out, but he was required to keep his house. He had used calomel internally, and croton oil externally. The dulness had steadily out slowly augmented, and at my visit was more than at any time before. I suggested the probability of acute phthisis, advised blistering, the omission of calomel, &c., and of depressing treatment, and the use of the cod liver oil. I requested that Dr. Jackson should be consulted. That gentleman saw the patient a few days afterward, and was, I believe, inclined to view the case in the same light as I did. He however request-

ed another examination. Mr. H——— became very anxious about his health, and declined allowing any further auscultation.

He spent the Summer in the country; grew fat on cod liver oil, but his cough did not cease, the dyspnœa rather augmented, and in the Autumn he had a fistula in ano. The attending physician informed me that there were signs of a cavity in the lower lobe. In other words, it seemed from the long continuance of the disease (eight months), and from similarity to the two others already given, that it was another example of peculiar, anomalous, tubercular disease, commencing in crepitous râle at the base of the lung. This patient is still alive, and has undergone two very serious changes since that period. His fistula still remains open. He is considered a permanent invalid, and has done no business since his first attack. Last Winter he was suddenly seized with signs of pneumothorax of the affected side, with tympanites, resonance on percussion, absence of murmur. From the immediate effects of this attack he slowly recovered, and, instead of air, a large quantity of serous yellow fluid was effused; six pints of which I removed, with great relief to the patient, in May, 1855. I used the same apparatus mentioned by me in my paper, given in the *American Journal of Medical Sciences* for April, 1852, and in a former number of the MONTHLY. Nothing but the most pleasant results followed the operation. Now (June 6, 1855) he walks about, does not attend to business, but occasionally visits his warehouse. The fluid has shown no tendency to return, but he has great dulness of right breast, and a distinct dry tubular respiration and bronchophony; also some vocal resonance at the top of the left back. No crepitation, but only an obscurity of respiration at the lower parts, where crepitation was heard last year.

Resumé. A most interesting and important case! Taken a little more than a year since, with the crepitation as in previously described cases. This patient has gone through three of the most serious accompaniments of phthisis, viz: fistula in ano, pneumo-thorax, and pleurisy, with effusion; for the latter of which a puncture was made, with complete relief to the symptoms depending on that state of things; and now, *finally*, he

presents the usual signs of condensation at the apices of both lungs. He is however better than for some time, but has evident dyspnœa and emaciation. He falls into the same category with case VII.

Case V.—Aged 20. A collegian the last two years, and a scholar in Boston before. Residence at W———. Always puny, but never really ill; easily fatigued by exercise, but able to walk six or eight miles daily. Has usually walked much. Never liable to cough; digestion, good. I saw him July 21, 1854.

For weeks before visiting me, he had had some pain in the right chest, but had been relieved. He had been very much occupied in preparing for a collegiate exhibition, in which he had felt a deep interest. For a few days he had felt weak, owing, as he thought, to the prevalence of an East wind, and the day before I saw him he had a tickling sensation at the bottom of the sternum, and gradually a soreness came on, low down in front of the chest. Otherwise he felt in perfect health. On the day this soreness commenced he spent a long time in the woods repeating, in a loud voice, the exercise he had prepared for exhibition. He used port wine as a gargle, and gradually the soreness, or burning pain, fastened upon the epigastrium. It increased as the evening advanced, but he awoke free from all trouble the next morning. By resuming his daily labors it was reproduced. Digestion usually in tolerable order, but a little costive. Dejections every second or third day. Never any acidity. No chills, heats, or sweats. Urine darker than usual, and it had a strong odor and a sediment.

As he entered my room, he looked rather frail, but well. Tongue clean; appetite good. His respiration was easy; soreness prevented at times a full inspiration; he had also, occasionally, a dull pain in the back. He felt somewhat restless, without any evident cause. Pulse 72; skin normal. The rational signs were in fact so small that I should not have thought it necessary to examine the thorax of the patient, had he not visited me solely for that purpose. The physical signs were as follows:

Inspection good. On percussion, difference of pitch on lower third, front and back, it being a little *higher* at the left than at

the right. By auscultation was heard *a very minute crepitation throughout the lower third of the left*, corresponding exactly to the higher note.

From the physical signs it was plain that there was a congestion of the left lung. The rational signs set aside wholly the idea of pneumonia. I could not but be reminded of the preceding cases of phthisis. I deferred my judgment, however, but ordered as follows:

He must keep quiet, give up all elocutionary efforts, have a simple diet.

℞. Pill Hydrarg, ℈i.
in pil. iv. One every other night.

July 24th: On the day of this visit he was seized, while driving, with a severe pain in the left side. The motion caused him great agony. From that period he had had uncomfortable feelings at the top of the shoulder; but otherwise the symptoms were as before. Physical signs identically the same as three days previously.

Croton oil to the chest. Keep quiet.

July 29th: While driving to my office he was again seized with a pain in the side, so that he had to rise in the carriage in order to avoid the jolting, He was very costive, in spite of Rochelle powders and injections. Exertion produced heat in the side and along the sternum. On the night of the 28th he had a little hemming, but no cough and no sputa. Breathing a little more difficult. Pains in both sides, at times, on full breath, and unpleasant feelings there all the time. No hectic. Appetite indifferent till he commenced eating, then it became voracious. Aspect as good as at his first visit. A slight hem occasionally noticed during examination.

Crepitation perhaps a little coarser behind, but heard from *one inch above the angle of the scapula, and in front from an inch below the nipple, to the base of the lung.*

Extract Colocynth comp., gr. v., every morning.
Advised the attending physician to use iodide potass. and leeches.

Aug. 23d: Had been worse. Ten days before, was visited

by a college friend; talked much and read aloud. He had increased heat about the chest, and was confined for two or three days. He had had four leeches, and had followed the prescription above given. Very little pain in the chest. Digestion better; bowels regular; face a little red; urine natural. "*Not a particle of cough;*" able to ride better; no trouble in coming into town; pulse 84; head well; no emaciation. *Crepitation terminated distinctly and abruptly in the middle of the back and at the nipple in front;* that is, it had extended.

Continue the same course, increasing the dose of the iodide.

A month subsequently, I learned that the physical signs were gradually augmenting, but the patient suffered much less pain, and had thrown aside all medicine and came into town to take lessons on the pianoforte. In a letter received the past week (June 17, 1855), the attending physician informs me that the disease of the lung is increasing.

Case VI.—I saw in consultation with Dr. C——, October, 1854. Dr. C. gave me the following account of the case:

G. A. H., aged 26, hardware dealer, salesman and traveller in a large firm. Married.

In February, 1854, he had an attack of "lung fever and pleurisy," from which, after a few weeks, he recovered so far as to be able to return to his business. His health however was far from perfect, but being active and "ambitious," he continued to perform full service through the remainder of March and April. About the middle of May, he was seized with a febrile attack, accompanied with a slight irritating cough and shortness of breath. He was confined to his bed only a day or two. The physical signs were chiefly the following: Great dulness on percussion over the lower half of the *right* lung, with bronchial respiration and bronchophony in the same part; some crepitation or mucous râle immediately above the dull spot, and at the very lowest portion of the *left* lung. The crepitation in both lungs gradually disappeared; the cough almost entirely left him, and the dyspnœa occurred only after exercise. His pulse fell to 80; his appetite was sufficient, and

his bowels were tolerably regular. No appreciable improvement took place in the right lung.

He was excessively uneasy under restraint, and wished to start on a "business tour" South and West. This being objected to, he dissolved partnership, and gave up his business connections. As he had in February been advised by his attendant physician to go to a milder climate, he now resolved to try a voyage up the Mediterranean, and on the 5th of June sailed for Malta. After considerable suffering and a bad voyage, he arrived there July 12th. He was told by an English physician that the lower lobe of his right lung was consolidated. After remaining two weeks, he returned home by way of France and England, and reached Boston Aug. 25th, about in the same condition that he was in when he left; certainly not improved. He was not confined to his house, but passed his time in visiting his business and other friends, walking moderate distances, and driving two or three miles, without much effect or inconvenience.

Sept. 6th: Twelve days after his return, he had hæmoptysis, and expectorated about one-half pint of fluid blood, and a noticeable quantity of frothy mucus. The hæmorrhage recurred the same day, and after an interval of two days took place two or three times daily for six days more. The whole number of bleedings was fifteen, and the amount discharged about five pints.

Treatment.—Rest, abstinence. Blisters. Acet. plumb. and opium.

Sept. 14th: Hæmoptysis ceased. Right lung, lower lobe, as previously; mucous râle and occasional clicks in the middle one-third; also in lower part of left. Respiratory murmur and percussion normal elsewhere. Considerable debility and sickly aspect from loss of blood, &c. Pulse 80, above which it never had risen except under temporary excitement.

Almost immediately on the cessation of the hæmoptysis, he began to have febrile paroxysms in the after part of the day and evening; at first very slight, but gradually increasing in duration and intensity; followed by sweats, which at last thoroughly drenched his clothing. The pulse rose to 90, and in a few days to 100; then to 110–15, and during the last week of

his life to 120–30. Respiration 34 to 40 per minute, varying during the same visit. The bowels became irregular, alternately costive and loose; the appetite was craving for more than could be easily borne. The *crepitation in the left lung gradually extended upward.*

Oct. 5th: Twelve days before death, I saw him in consultation, and observed as follows: On percussion there was less sound, generally at the right, and particularly so in the lower part of it. There was evidence of great obstruction in both lungs, at the lower portions. Cracklings coarse, at the right; *fine explosion of crepitus râle in the same part of the left;* above, something similar in both, mingled with a sonorous râle. Loud and rough respiration, but evidently the most pure that could be found, was perceived under the clavicles. Patient was very feeble, could not rise in bed without assistance, and was unable, owing to faintness and dyspnœa, to remain but a few moments in a sitting posture. The dyspnœa was very great and manifest. Patient spoke only in whispers, and preferred to write his wants. Pulse 122, feeble. Expectoration ragged opaque sputa and a watery fluid. Urine dark, slimy. Digestion good, though tending to irregularity of the bowels. Sweats, copious at night.

I learned from Dr. C. that the crepitation gradually extended, and finally by the 16th of October occupied the whole lung to its apex. Within a week before, a similar state was observed in the right lung. Percussion being unpleasant to the patient, was not persisted in. Flying pains occasionally in both chests.

Oct. 15th: Much blueness of nails; coldness of extremities; almost pulseless; dyspnœa intense.

Died in the evening of Oct. 18th, at 7½ o'clock.

An autopsy was made under great difficulties, at 3½ P. M., Oct. 21st.

Great emaciation.

On raising the sternum the lungs looked pale, but over the right were patches of thin old opaque false-membrane. This was found to extend over almost the whole of the organ. The two upper lobes were removed with comparative ease. The lower lobe was very firmly adherent, so that the pleura costalis was ruptured in raising that part of the lung.

The left lung was very slightly adherent, but chiefly in its lower half, by a more delicate membrane, the major part of it being of recent soft effusion.

The right lung was diseased as follows: Not a particle of the lower lobe was healthy, but it was broken down into a ragged cavity, having exactly the aspect of a common tubercular cavity, as found at the top of a lung. The walls of this cavity were from a quarter to half an inch thick, and it was traversed by numerous bands, all of which were dense and impervious to air. There were a few crude tubercles. The middle lobe was studded with crude opaque tubercles, and the interstices, though containing a little air, were denser than in health. At its lowest part there were a few small cavities, containing pus, and which had not communicated with the bronchi. In the upper lobe were a few small tubercles, but it crepitated and was healthy, except that it was very œdematous.

The left lung was covered on its lower lobe, and the lower part of upper lobe, by a delicate membrane, which was soft, recent, and of a deep, mottled red, aspect. The lower lobe was uniformly dense, as from pneumonia. The upper lobe was pale, swollen, and looked emphysematous; tubercles were easily felt in its interior. On incision of the lower lobe it was found everywhere solid, and of a mottled gray appearance, like the gray infiltration of tubercle, being less friable, less granular, and less purulent than pneumonia. A few opaque distinct tubercles in it. The upper lobe, on incision, showed many tubercles, *most numerous at its lower part, and gradually diminishing towards its apex, which was almost free from them, and was the most healthy part of either lung.*

Heart normal; left ventricle filled with soft, black, grumous blood; valves, all well.

Intestines, examined only in spots, seemed healthy. No ulcers near the ileo-cœcal valve. Mesenteric glands, well. Liver, medium size, healthy, dark. No tubercles seen in any of these organs.

It should be stated that, by two microscopists, tubercular corpuscles were found in abundance in the crude tubercles, and a few in the gray semi-transparent condensation of the left

lower lobe, and, on the contrary, none of the microscopic appearances usually seen in pneumonia.

The following may be the condition of the lungs in these cases. I observed this peculiar condition of the lung in a young woman, who died at the Massachusetts General Hospital, Dec., 1849. I would premise that she died after two or three weeks illness, of undoubted pneumonia of the right lung, as it seemed to all who saw her. She had the rusty sputa of that disease. The lung was generally tougher than normal, and covered with a thin recent membrane. The lower lobe was solid, and on incision it was found generally with a reddened surface, but studded with masses varying from the size of the smallest tubercle up to that of a walnut, opaque, white and solid, resembling, in fact, in all their characteristics, distinct, isolated tubercles. Had we not known the previous symptoms, we should have undoubtedly considered them as tubercles. The apex of the lung was less seriously diseased throughout, but it contained a few of the smaller masses, and a little cavity. A few of the same bodies were seen in the lower part of the upper lobe.

Notwithstanding the symptoms of pneumonia, I am inclined to believe these bodies to have been tubercles of recent origin, which had excited and kept in existence a hepatized condition of the lung.

Analysis of the Preceding Facts.

I have noticed but eight* cases of this combination of rational and physical signs, since January, 1842, *i. e.*, during nearly thirteen years. Six of these I have already laid before the Society. The two additional cases will be given under the head of Diagnosis. All excepting one have either died of phthisis, or the disease is going on at the present time. That one, after a severe hæmoptysis and the rational signs of phthisis, is said to be healthy at the present time.

Considering it a form of tuberculosis, it is quite rare. Dur-

* Since this paper was prepared I have seen three more cases, and am induced therefore to believe the disease to be rather more common than I have heretofore supposed.

ing the same number of years, I have made records of more than 500 cases of Tubercular Disease, and as only three of the above cases occurred in my own immediate practice, I think we may infer that not more than once in one hundred and fifty or two hundred cases, shall we meet with this anomalous form of tubercular development.

The *ages* of the patients present some curious phenomena, which I think can scarcely be explained by the fact of the greater number of all tubercular cases occurring in early life. Of the seven cases, either fatal or now threatening a fatal result, the oldest is 34, the youngest is 22 years of age, and the average is 25 years.

The *sex* in all the cases was male.

Temperament.—All of the persons thus affected were of an unusally active temperament; and this, taken in connection with the nervous irritability,—apparently the result of the disease,—seems to indicate that, other things being equal, the active, intense excitement of the present time, in every species of business, *may* predispose to this kind of tuberculosis. Of the eight, seven may, in the above particular, be fairly ranked with "*Young America;*" all of them having been born in New England, and in the performance of daily duties may be ranked as follows:

Professions.—Three of them were salesmen of large mercantile firms, and were called to a constant, unintermitting exercise of the mind, and exposure of body as travelling agents, &c. Two were clergymen, young, active, and devoted preachers of earnest orthodox doctrines, three times each Sunday, and perfectly reckless of all hygienic rules in the performance of their parochial duties during the week. One was a student in college, stimulated to the last degree with an honorable but deadly emulation of his peers for a prize in declamation, and, Demosthenes like, spouting in the open air. Finally, two traders, both of whom may be considered as being of the above described character, and each claiming to do nearly twice as much as any other man. Not one of the eight presented a single phase of the sluggish disposition. A certain railroad

speed of mind and of body, and a kind of superhuman disposition for work, was the distinguishing trait of all of these unfortunate persons.

Symptoms Precursory of the Serious Symptoms, which Induced the Patient to Consult a Physician.

Cough.—This was noticed as slight or occasional in four, for a space of time varying from three weeks to many months, but it was never a marked symptom. The patients hardly noticed it, and had not consulted a physician for it. In one, it soon became urgent, and ushered in the severer symptoms of disease. In one only was it stated that the patient had never been liable to cough.

Expectoration.—Two had no sputa. In three, hæmoptysis had occurred; and in one it occurred several times.

Thoracic Pains.—In four only were they noticed. One of the persons had no premonitory pains. In three, pains occurred. It was slight in two; and severe in one only, viz: over the region especially affected by disease.

Aphonia.—Had occurred months previously in one case.

Digestion.—Usually not much disturbed; but in only one was it said to be perfect. It was bad in one, and there was loss of appetite and constipation in others.

Urine.—Noticed twice. Once a strong odor and sediment were noticed. In the other case, it was normal.

Fever, &c.—Noticed in five cases. None in two cases; considerable only in one.

General Health.—Mentioned four times. In three it was a little disturbed. Patients felt a little ailing, or had lost a little flesh, but all were able to attend to their business till seized with the more acute symptoms, and needed the attention of a physician.

Exciting Cause.—Loud speaking in the open air, and a very severe exposure to a cold wind in winter, were mentioned as the first causes of the trouble in two cases. In other cases it was not manifest.

Symptoms after the attack, or after the physician was called.

Cough existed, more or less, as in common phthisis, in five out of six cases. In the sixth there was no cough, only a slight occasional hem, for a long time after very extensive physical signs were manifest.

Expectoration.—In one, who had no cough, there were no sputa. In the five others there were the varied appearances seen in phthisis, viz.: in two, hæmoptysis; two had greenish sputa; one had thin and glairy mucus. At times there were ragged and opaque masses.

Thoracic Pains.—In only one were they a prominent symptom. In this they were agonizing on motion. In two they were described as dull.

Dyspnœa.—This was a *constant* symptom. It was slight usually, and scarcely perceptible at first, or only on exertion; but becoming more as the disease gradually invaded the lung. At the latter stage of the disease it was very great, and caused lividity.

Digestion.—Costiveness occurred in three. In two there was some oppression after food. In one only was there decided dyspepsia of some months' duration.

Urine noticed only twice. It was natural in one; dark and of strong odor in another.

Fever.—Little or no fever observed at first in five. But in three there were febrile symptoms at last, as in phthisis proper.

Cephalic Symptoms.—There was an undue restlessness and nervousness about themselves in three of the cases. No delirium or other serious symptom, except toward time of death.

Strength.—In the early part of the disease the patients did not lose their strength. When a fatal result occurred, there was, of course, a gradually increasing debility, as in common phthisis.

Physical Signs.—The most marked sign, and almost pathognomonic of the disease, was *a fine explosion of crepitous râle, exactly like that heard in pneumonia, and like that perceived at the lower part of the back, or just about the angle of the scapula,*

when a certain amount of bronchial respiration was heard at the very lowest part. Unlike the crepitous râle of pneumonia, *it persisted without change for a great length of time, varying from weeks to months.* This sign was heard in all. It was in the lower third of the back in five, and in one of these it extended slightly, and by a well-marked outline, to the front. In one only was it confined to the front. It occurred twice in the right, and four times in the left lung. The shortest record of its existence (and this is imperfect, because the patient left town while it actually existed,) was forty-six days. The longest was twenty-two months!

In four cases, pectoriloquy or bronchophony ensued, after a great length of time, in the spot where the râle was heard; and subsequently, or perhaps at the same time, disease attacked the upper parts, or those more usually seized upon by tubercular disease.

Treatment.—In five, an antiphlogistic course was pursued, viz: leeches in two, and mercurials in three; in one instance to slight ptyalism. But no effect was produced, the crepitous râle continued as if no treatment had been adopted. In four of these cases the usual treatment for phthisis was subsequently used. In the fifth the iodide of potassium was used faithfully, but without avail apparently, for the disease is advancing.

In cases 7 and 8, detailed under the heading of diagnosis, some effect seemed to be produced either by time and nature or by the treatment.

Appearances at the Autopsy.

In only two have I made an autopsy; both of these were quite chronic. In both the disease was peculiar in the lobe where the crepitus râle had been heard. It was of a uniformly dense structure, or with this were numerous isolated tubercular bodies, and small cavities, containing pus. The lobe, when incised, presented a smooth cut, was less friable, less granular, less purulent than is seen in the third stage of pneumonia, to which it was allied in general aspect. This appearance had

invaded the whole of the lobe of one lung, and, partially so, the lower lobe of the other lung. In one case this part was occupied by a large irregular cavity, exactly such as is seen in tubercular lungs at the apex of the organ.

Usually the disease diminished from below upward, so that in one case the upper lobes were almost free of tubercles, while the middle portions were studded with opaque small tubercles amid healthy lung. In one a cavity was found at the apex. In this case the lower lobe was dense, as above described.

The *pleuræ* were always adherent, and generally very strongly so; but over one lower lobe that was quite dense was seen a recent soft membrane, and the pleura was of a vivid redness.

In one instance, I subjected the specimens in the tubercles, and the gray solid portions, to the examination of two able microscopists. Neither of the examiners found the usual inflammatory corpuscles, but the so-called tubercle corpuscle in abundance.

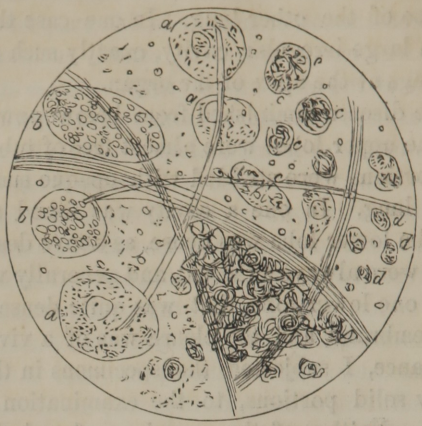
In a third case, (not reported, because seen imperfectly, except as to the diagnosis, and since this paper was commenced,) which presented most of the phenomena already described, only in a more acute form, the following appearances were noticed by Dr. Ellis,* who has kindly allowed me to have them as illustrative of this paper. It seemed as if a regular gradation could be traced from the inflammatory corpuscle in the parts least diseased, and looking least like tubercle, down to the collapsed and shrivelled "tuberculous" corpuscles found in the more diseased parts. I shall return to this subject under the head of "Pathology of the Disease."

* Dr. Ellis made the following report on some small pieces of the lung of a young man who died after hæmoptysis and a comparatively short disease, but with the physical signs as stated above:

To the naked eye the tubercular deposit was present in three distinct forms: 1st, as isolated, round, yellowish white granulations, about a line in diameter, and separated from each other by pale red pulmonary substance; 2d, as a yellowish white, almost diffluent or gelatinous matter, a small quantity of which only was seen; 3d, as a yellowish granular substance, containing but little moisture. This last form was most abundant, occupying, in large irregular masses the place of the pulmonary tissue.

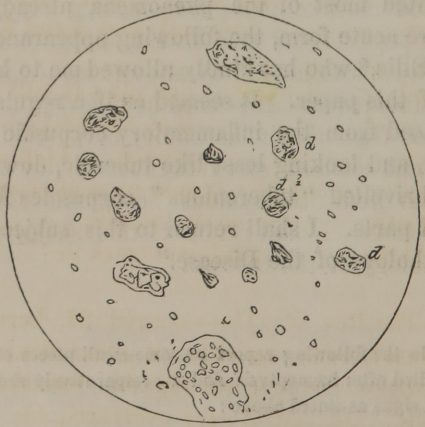
On examination with the microscope, the first two varieties were found to

FIGURE 1.



contain essentially the same elements as represented in Figure 1, viz: epithelium, inflammatory corpuscles, and others of various sizes (the latter unaffected by acetic acid), forming a regular series down to the so-called tuberculous corpuscle. In addition to the well marked epithelium cell, others were seen in which the nucleus was almost obscured by the minute globules, which entirely filled, and gave the peculiar character to, the inflammatory corpuscle.

FIGURE 2.



The appearances in the third variety, are represented in Figure 2. Here the larger corpuscles had almost entirely disappeared, a few fragments only remaining, while the number of so-called tuberculous corpuscles had much increased.

Numerous minute globules and granules, were floating about in all the specimens.

The microscope used was one by Nachet, and with a magnifying power 533 diameters.

FIGURE 1. *a* Epithelium. *b* Inflammatory Corpuscles. *c* Granular Corpuscles, of various sizes. *d* The so-called Tuberculous Corpuscles.

FIGURE 2. *c* Inflammatory Corpuscles partially disintegrated. *d* Same as in Figure 1.

Diagnosis.—This is not always very easy, and at the first view of the facts, it seems to be almost impossible. All the physical signs are those usually attributed to pneumonia, and they are situated in the portion of the lung usually attacked by pneumonia. This class of cases shows perhaps better than most others the great importance of an accurate comparison of the rational with the physical signs. For if we depend upon either exclusively, we shall certainly fall into error. For on the one hand, very serious and alarming symptoms may exist with very trivial signs at the base of the lungs, the apices being entirely healthy; and on the other, there may be almost no rational signs, and the patient may be really almost wholly well, while by the physical signs we shall discover extensive disease at the lower portions of one lung. The two most important elements toward making an accurate diagnosis are—1st, the unusually *long persistence* of a very minute crepitous râle in a limited portion of the lower part of a lung; and 2d, the existence of such a râle in the same part, without any but perhaps the most trivial rational symptom. Cases 1, 2, 4, and 6, may be ranged in the first, and cases 3 and 5 in the second class.

It will be easily seen that in the first class it will be impossible to come to an accurate diagnosis at the first visit. A certain length of time is absolutely necessary. At present I fear it will be impossible to be perfectly sure even after many weeks, or it may be months, of duration of the râle.

The following cases illustrate this remark;—

Case VII.—The Rev. Mr. C——, aged 27, born in Massachusetts, always a scholar, and always in excellent health, except that he had been liable to constipation, hæmorrhoids, and severe headaches. He had always overtaxed his brain, and had used in earlier times, very freely, tea and coffee, but not tobacco. He had always supposed that his lungs were especially strong, and had been accustomed to preach loud and long, often in the open air; and three times each Sunday he performed his ministerial services, with more than ordinary earnestness. I saw him July 5th, 1853, in consultation, for the

following train of symptoms :—It appeared that four weeks previously, after having been unusually free from headache for some time, he was suddenly seized with cephalalgia, nausea, and vomiting. A little blood was seen in the matter rejected, and the patient felt a severe "blow" at the epigastrium, during one of the last efforts to vomit. The succeeding day, although he was weak, he was easier, having only slight headache on exertion. Forty hours afterward he preached moderately, and felt no inconvenience save debility. During the following week, however, he studied very hard, and preached as usual three times on Sunday. Great prostration ensued. The next morning he hawked up a little clotted blood, and on Tuesday, two tablespoonfuls of arterial blood. He then took to his bed from weakness, and during the four following days raised more or less, never, however, very copiously. During this period he had no tickling or discomfort in his throat; the cough was slight, similar to what he had been liable to for a year, after speaking, but which he had never thought of as of any importance. He had had, two days before I saw him, a slight pain across his chest, and a little under the left clavicle; slight dyspnœa on walking. His appetite had been good until a few days. For his costiveness, he had taken salts and oil four or five times. He had had no chill or heat, but had had an occasional sweat, and had lost flesh.

His hereditary tendencies were not to pulmonary disease.

At my room he seemed quite well, but thin. The tongue had a thin coat; he did not cough; had no change in the voice.

The physical signs were as follows :—On inspection, nothing peculiar. On percussion, fair every where. If any difference, there was a slight difference of pitch in the clavicular region, in favor of the left. Murmur quiet, but vesicular in front, although at times I thought there was occasionally a little less expansiveness about the right than the left clavicle. Voice normal. Behind: Percussion not very clear any where. But the most striking and peculiar sign, was *an explosion of the most minute crepitus râle heard, on full breath, in the lower third of the left back.*

He had been taking an iron mixture. This was continued. He was directed to give up preaching, and to use croton oil to the lower part of the chest.

He returned immediately into the country, and I saw him again July 23d (in about twenty days). The crepitation had then almost wholly left him. It could be just heard on a full inspiration.

Daily bathings and frictions. Chew rhubarb for costiveness. Continue croton oil. Horseback exercise.

Sept. 8th : Had gradually been getting better, and had not preached until two weeks before, when he felt as well as ever. The digestive system had been well, except that he had piles. No cough, but he had raised by hemming in the morning a green substance. Auscultation and percussion seemed perfect. No râle anywhere.

Ung. gall. and stramonii ordered for the piles. Allowed to preach once each Sunday. Horseback exercise five to ten miles daily.

The patient seemed well ; the congestion of the lung was gone, and I saw nothing more of him for exactly one year, when he again called, and related as follows :—

He had preached *twice* daily until July, without cough or any trouble but his habitual costiveness. Eight weeks previously to his visit, he had again a cough, and had raised bloody sputa and some frothy white fluid. His throat had been sore, with almost complete aphonia. One day he had raised a bloody clot with relief to the throat. He could not remain seated without having an unpleasant sensation across his chest ; an excessive faintness and "all gone sensation" along the sternum. He coughed a little in the morning, perhaps ten or twelve times. He had no fever, but a slight heat of the skin ; slight pain in the left chest, six weeks before his visit. At the visit, his pulse was at 96, and his appearance was not very morbid.

The only sign was a little less respiratory sound under the right than the left clavicle, corresponding to where there were *very obscure* signs at the previous visit.

He asked if he might resume his duties in a village near Boston.

I told him that I feared the slight difference of murmur noticed above, and that if he could travel it would be better to

do so. If that were impossible, he must probably be settled. But he must never preach in the evening; he must use porter or wine, and if pain should come on in the chest, he must use croton oil, and, finally, apply nitrate of silver to the throat.

About a week subsequently I examined him again, and was fully confirmed in the opinion that there was a slight tubercular development at the summit of the right lung. This opinion was confirmed by the independent examination of another physician upon whom the patient called soon after I had seen him, having been not wholly satisfied with my own views of his case.

Jan. 20, 1855: I have seen this gentleman recently. He undertook the charge of a parish, and has steadily failed since; and now has crackling and every sign of tubercles throughout the whole of the upper lobe of the right lung.*

The preceding observation is very interesting as affording another illustration of the usually fatal indications to be derived from a fine crepitus râle existing under the circumstances I have noted above. But unlike the others that were fatal, the râle was dependent either upon something more transitory than tubercular matter commonly is, or if dependent on a collection of miliary tubercles, these tubercles were cured by the treatment pursued. I am inclined to the former opinion. But whatever may have been the cause of the sound, the observation seems to indicate that a tubercular diathesis existed from the first, which finally showed itself in its usual place.

But the following observation presents the most formidable difficulties in the way of diagnosis. A year or two more of the patient's existence may class it in the same category with the preceding; but, at present, it stands alone. I have met with no similar case:—

Case VIII.—I. L. H——, aged 38, Roxbury, superintendant of a steam planing mill. Usually in youth he was in robust health. At the age of 18, he had lung fever, and two or three slight febrile attacks afterward, before the illness began for which he consulted me. For several years he had been liable to headache and costiveness. Two or three years before, had

*This gentleman died recently of phthisis, and cavities were found in both lungs.

slight hæmoptysis after a violent strain, and subsequently he had a disposition to hem. He had often had bloody sputa, and twice had raised more than half a pint. No other prominent symptom, except perhaps a dull pain in the thorax, and some dyspnœa on going up stairs. The exertion of going up an eminence, and, also, excitement of mind, had produced the hæmorrhage. He had been able to lie on either side; no palpitation. Appetite, usually good; bowels, a little costive, at times, for two or three days; urine, well. No hectic, or emaciation, or much debility.

At the time of his visit to my office (Jan. 21, 1853), I found him a tall thin man, but not very unhealthy in aspect. He had at times a slight tickling in his throat. His pulse was regular, 72. Right tonsil a little enlarged; uvula, well. Twenty-four hours previously, he had raised two or three ounces of blood, without coughing or much exertion; and for several days he had, perhaps a dozen times, one or more sputa, daily. He was afraid to lift even the smallest weight, for fear of hæmorrhage recurring.

On examination of the chest, it appeared long, but contracted toward the base. Murmur, everywhere good; no râle, even on coughing; voice, good; heart, normal.

Seven days afterward I saw him again, and learned that he had not raised more than a tablespoonful of blood, and he had felt well save that he had been costive, and had had a little pain in the bowels. On auscultation, similar results to the above, but *on coughing* a slight crumpling was heard in the lowest part of the right back, and *a distinct crepitation in the infra axillary region*. Voice, normal; no bronchial respiration; percussion gave a little less sound there, but no real dulness.

A laxative pill and acid sulph. dilut. gtt. x. were ordered three times daily. Croton oil to chest. Gentle out-of-door exercise.

March 11th: He had been gradually getting better, and had attended to business slightly. For a few days before the visit, he had felt rather less well, and on the 9th raised a little blood, followed by half a pint on the 11th, dark at first. He however had not desisted from business. Omitted drops a few

days before, and had been taking half a glass of madeira wine three times daily.

Crepitation as before, and perhaps a little more toward the mamma. Pulse 84, even after exertion.

Resume acid. Omit tonic. Continue external irritants.

He soon afterwards resumed more fully his business, but avoided all violent efforts. He had occasionally attacks of hæmoptysis, and Nov. 11, 1853, I examined him, in order to see if any trouble remained. None could be found, and the patient seemed well, though unable to labor as hard as before. He continues well now (June, 1855).

In this case I certainly feared the development of tubercles, from the rational signs, and from the absence of any rational signs of pneumonia, and finally, from the persistence of the crepitation (certainly three months). It is the sole one of eight cases, in which the same or similar symptoms and signs have existed, which has not resulted fatally, or the patients are now ill of chronic disease. It is certainly a stumbling-block in the diagnosis of such cases; but the patient may within a year or more prove to be phthisical, as in case seven.

From these two observations it is evident that my first remark, in regard to the value of the long persistence of crepitation, as *pathognomonic* of this form of tuberculization, must not be received with *entire* confidence. Nevertheless, in seven out of eight of the cases the rule holds good, and possibly even in the eighth case the patient may become tuberculous, as I have already suggested.

In truth we may say that if in any case of pulmonary disease which shows itself, either by a few of the more prominent signs of phthisis, such as hæmoptysis, a slight cough, or a disturbance of the general system, &c., or if there be scarcely any thoracic symptom, and yet the patient complains of being less well than usual, we must always make a decidedly unfavorable, though not absolutely fatal, diagnosis and prognosis, if we find a crepitation in the lower portions of one lung, without any other

sign of pneumonia; more especially if this sound continue without variation for more than two or three weeks.

Prognosis.—The prognosis need occupy us but a very short time, for we see from the preceding article it is very unfavorable for any one to have symptoms and physical signs like those described in the preceding part of the paper. It is not simply unfavorable, but it may be deemed almost necessary to make a fatal prognosis.

Pathology of the Disease.—This question is deeply interesting. I think the rational and physical signs, and the results of the microscopic examination of the lungs after death, place this class of cases of anomalous tubercular development, just on the disputed confines between tubercle and inflammation. They do in fact show how the two may coalesce, or pass easily from inflammation to tubercle, and *vice versa*, how tubercle may excite inflammatory action. Looking more closely, we see that the physical signs ally this disease, *at first*, certainly very strongly to pneumonia. By their durability, however, they suggest either chronic pneumonia or phthisis. On the contrary, the rational signs, if at all significant, for at times they are so slight as to indicate nothing distinctly; these rational signs point to phthisis. Thus, during the whole of the disease, the thoughts of inflammation and of tuberculous disease present themselves. At the autopsy a peculiar appearance presents itself; a mingling of tubercle with what might pass for chronic pneumonia, and Dr. Ellis has very beautifully traced, by his microscope, in one case, a regular gradation from evident inflammatory exudation corpuscles, down to the so-called tubercular cells.* If it be pneumonia, however, at first, it certainly shows by its course, and by the want of influence exerted by antiphlogistics in its treatment, that it is very different from, and more persistent than, common pneumonia. It may, however, be regarded by some as a scrofulous, slowly developing, inflammation, and not acute plain pneumonia, such as we meet

* See note of Dr. Ellis' examination under "Diagnosis."

with in ordinary practice, and which runs its course in from twenty to twenty-five days.*

Treatment.—Alas that it should resemble phthisis so much as it does in usually resisting all treatment. It is true that in two of the cases the crepitus râle disappeared after months of duration, and under treatment, but in one it disappeared only to allow, if possible, graver and more positive signs at the apex. In all the others the disease went steadily onward, unchanged even in the slightest particular by anti-phlogistics, mercurials, blisters, tonics, &c.

My advice in another case, would be, not to rely on medicines, but on constant active out-of-door employments and external irritants. Travelling in foreign climates for the sake of changing, not merely the sky, but likewise all previous habits, should be recommended. A constant irritation by blisters or croton oil should be kept up. In the later periods the cod liver and fusel oils might be resorted to by the practitioner.

This is, in certain respects, a sad termination of our investigations. If, however, the results to which I have arrived are true, they are important, in enabling us to make a more sure diagnosis and more careful prognosis, while they will at least tend to prevent us from the violent heroic, or strongly anti-phlogistic treatment, to which the physical signs undoubtedly tend to lead us.

* Whilst this paper is passing through the press, I find an article by Dr. Cotton,* of London, in which he describes a similar disease, and considers it "chronic pneumonia." Dr. C. does not give any statistics, but he considers that in "by far the greater number of cases the disease terminates favorably under timely and judicious treatment." The differential diagnosis of this disease, from phthisis, Dr. C. decides by the physical signs, which are almost exactly similar to those given in this paper. I cannot agree with him entirely as to the diagnosis, and certainly my experience does not support Dr. C's prognosis. It is an interesting circumstance, however, that two independent observers have been led to notice the phenomenon in question in two such remote quarters of the globe.

* London Medical Times and Gazette, March 31 and April 14, 1855.