

1876 to 1880	1 in 308
1881 to 1885	1 in 320
1887	1 in 331

These results bear out those before obtained, and encourage us to hope for a still further improvement. They also call our attention to the causes of this improvement, which are well worthy of the attention I cannot give them at present.

To the considerations already advanced as affecting the geographical distribution of consumption, should be added a study of the effects of *occupation* and *nationality* upon the mortality from the disease. But upon these points I have not been able to find any Massachusetts statistics worthy of presenting. I, therefore, merely call attention to them as worthy of further investigation. When the facts are all in, we may hope for definite and uniform conclusions.

INFLUENZA IN THE OUT-PATIENT SERVICE OF THE BOSTON CITY HOSPITAL.¹

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HAVING been upon service in the Out-Patient room during the late epidemic of influenza, it appears proper that I should report the cases seen there, in order to complete the history of the epidemic in the hospital, which has already been made for the wards by Dr. Mason.² In so doing I shall make use of my private cases when convenient, although the two sets of cases ought probably not to be grouped together; since the ordinary run of patients were probably sicker than those coming to the out-patient room. It is true, however that many of these last had been quite sick, and applied for help only when capable of going out; but before they had forgotten the history of the previous days.

There were in all seventy-four cases of influenza, not including sequela; and of these there are very complete records of forty-eight, for which credit is due to the then externes, Drs. Whittemore and Haskell up to January 7th, and Drs. Dwight and Fuller for the later histories. None are recorded as presenting themselves before the fourth day, and in general they ranged from four days to two weeks, when first seen; while many of them did not make a second visit; thus agreeing with the common observations as to the duration of the disease, and as to its greatest severity being during the first few days. There was one case at sixteen days; there were three cases at three weeks, in one of which three, cough, and in another pain, were the only remaining symptoms; and there was one case of insomnia and anorexia at five weeks. Up to the present time, cases not of influenza, but which began as influenza, still show themselves, the patients complaining, for the most part, merely of debility.

It is of great interest with reference to the question, whether the disease is contagious or not, to note the dates of the early cases. I have been told of cases in November. My own first case sent for me on the third of December, having had some soreness since November 29th. My next case dates from December 17th. Dr. Mason states that the first admissions to this hospital were December 10th. Dr. F. C. Shattuck³ saw

his first case on the same day. None are recorded in the out-patient room before December 24th, when there were five cases, one dating from the 16th. It was between December 20th and December 23d, that the number of admissions to the wards rose rapidly, as shown by Dr. Mason. The admissions to the out-patient service, which is open three days in the week, were as follows:

December 24 . . . 5 cases.	January 7 . . . 6 cases.
December 26 . . . 6 "	January 9 . . . 3 "
December 28 . . . 9 "	January 11 . . . 4 "
December 31 . . . 8 "	January 14 . . . 6 "
January 2 . . . 11 "	January 17 . . . 1 case.
January 4 . . . 12 "	

Many of the later cases were somewhat old; and there were three more cases, one of them being a relapse, and all dating back previous to January 17th. There is nothing in all this comparable to the undoubtedly correct stories of whole ships' companies being attacked on the same day in previous epidemics, a difference which, supposing the disease to be contagious, can be readily understood by any one who has seen the quarters of sailors on men-of-war, and thinks what they must have been without ventilation.

Symptoms. Of the various symptoms, not all of which were present in all cases, nor always at the same time, headache was, perhaps, the most constant and most persisting, existing more or less in almost every case, and being sometimes of great severity. Pain in the back was quite constant, and ranked next in order. Pain in the chest was common, and I think that no part was exempt. I have several notes of a general bruised feeling. Pain was generally an early symptom. It by no means always disappeared with the beginning of convalescence, and it sometimes remained after all other symptoms had gone. Headache may have been sometimes due to coryza, but was occasionally severe without it. Sore throat was far from being as universal as pain in the back and head. At times the tonsils, and at times the pharynx, were inflamed, sometimes severely, sometimes slightly; but it appeared to me that the complaint of sore throat was not infrequently greater than was warranted by the appearance of the parts, and that in some cases it was a part of the general neuralgia quite as much as of an acute inflammation.

There was no complaint of earache in a single case; but this was certainly due to its being a prominent symptom, when it existed at all, thus leading patients to seek the ear clinic. One baby I sent there for examination. Among the forty-nine private cases of influenza that I saw, were two cases of earache, one trifling and temporary, and one dependent on inflammation of the middle ear. There were also two cases of deafness from this cause in patients neither of whom had been sick enough to seek advice, but each of whom had much coryza. They got well slowly, and were advised to seek special advice.

Coryza was very general, but not universal. Dr. De Blois was kind enough to examine one of these patients without nasal discharge, by means of the rhinoscope. He reported very acute congestion. Unfortunately this case did not reappear. It may have developed a discharge later. Epistaxis was present in one case only among the seventy-four, and there was one case of bloody mucous discharge from the nose; the patient had laryngitis, as shown by the voice.

¹ Read at the Boston Society for Medical Observation, May 5, 1890.

² Boston Medical and Surgical Journal, February 13, 1890, p. 145.

³ Boston Medical and Surgical Journal, February 13, 1890, p. 148.

Cough was complained of by about half the patients. Sometimes it was mild, and sometimes very severe, the signs in the chest being also of varying character—from very slight to loud, whistling râles. I cannot, however, recall or find a record of more than one adult whose cough was severe without having something in the chest to more or less explain it. At the same time there may have been such; and possibly the cough may have been out of proportion to the signs in some cases. Certainly the disparity between signs and symptoms did not strike me as in the case of sore throat. Some patients had the expectoration of bronchitis, and others but very little. Cough was quite often a later symptom. It may have depended in part, and probably did in certain cases, upon the condition of the naso-pharynx—such cases, for instance, as the one examined for me by Dr. De Blois, and reported to be intensely congested. At the same time many patients coughed more by night than by day, pointing, perhaps, toward the nervous element in the disease. So far I have confined myself to adults. Among children, but most of the children that I saw were not at the hospital, there were cases of considerable cough, but with absolutely no signs in the chest. I should suppose that here the cough was largely of nervous origin, as has been suggested by Dr. Rotch.⁴

Chill was recorded in a little over a fifth of the cases, and probably existed in others, and was sometimes severe. At times it was the first symptom, but it has begun as late as the fourth day in cases that did not have pneumonia.

Vomiting was recorded once only, and nausea a few times. It did not appear to be worth while to record either in out-patients, except when they were initial symptoms, as they might easily have been due to indiscretion. Both undoubtedly existed in others as purely nervous symptoms. I saw a number of such cases in private.

Delirium was, I think, a not uncommon symptom, especially at night and in children; yet there were not many records of it in this service, probably because it had not been observed by the patient himself, and there was no one to tell his story.

Like other symptoms it sometimes was early and sometimes late; sometimes it was very early. A police-officer told me that he went upon his beat well and hardly knew enough to get home when relieved. Dizziness occurred in a number of cases. A few of my private patients complained of being very faint, but none at the hospital. Anorexia was universal, and insomnia seems to have been so in the last of the epidemic. The record does not so state during the early part. I had not observed this distinction until working up this paper; and I do not understand it, for my private case books show no such difference as to time.

I saw one case of bronchial asthma in a man who had had it before, and in whom it survived the rest of the attack, and one other case of severe dyspnoea, apparently of nervous origin.

Prostration was extremely common; perhaps some debility was universal, and it was at times severe. Cases of feeble and intermitting pulse from shock did not come to the out-patient room for obvious reasons, but I have met them outside. One patient whom I saw at his house, fell to the floor from weakness on stepping out of bed in the morning, and yet recovered

enough to go to New York on business at the end of a week. In many cases prostration, however, lasted a long time.

There were a few cases of diarrhoea and two of bloody dejections; one of them probably lost blood from hemorrhoids, but the other had a bloody mucous in the dejection, and probably came from an intestinal catarrh.

Although not a hospital case, I want to refer to a man with vomiting, abdominal pain and tenderness, who made me think of peritonitis, but who had, I think, influenza and nothing else. Recovery was complete in two weeks.

Two of the seventy-four cases had pleurisy, one early in the epidemic; the other has an effusion, and has never been well; although not under observation since his attack of influenza at Christmas, until a few days ago.

Out of the one hundred and twenty-three cases from all sources that came under my observation, four had an eruption, one came and went between two visits so that I did not see it. This patient was taking quinine. The other had an eruption of red papules, with abundant marks of scratching on the breast, and it was said elsewhere. This lady had been sweating freely, and I thought it was a papular eczema from that cause. She was also taking quinine. Yet another woman had an eruption that might have been measles. I only saw her once. She had had no treatment whatever. One man, who had had measles as a child, had influenza two weeks, so he said, and then having nearly recovered, had a severe chill, with prostration, so that he staggered in the street, and an outbreak which was very faint but which resembled measles and had its course, except that there is a doubt as to whether it began on the face or arms. He returned to show that he was getting well, and proved to be desquamating. This looks like a complication of measles and influenza.

The highest temperature was 104° in a baby, increasing to 105° in a week; then the case was sent to the ear-room for examination, and unfortunately I have not its later history. As a rule, temperatures in these out-patients were much lower when I saw them, although many remained slightly elevated for two weeks or possibly more. In general, I think that the severity of the cases is often much greater than is indicated by the thermometer.

Children.—During the whole epidemic, few children were presented for examination; and the Out-Patient Department of the Children's Hospital had a rather light service at this time. This may have been in part due to sickness on the part of parents, but I think not wholly so. The essential difference, so far as there is one, between influenza in children and adults, so far as my own observation went, is that the nervous disturbance is greater in children, although they are not free from catarrhal symptoms.

During the whole epidemic there was an increased number of patients applying for the first time to this department; yet had the influenza cases been eliminated, the number would have been smaller than in the corresponding time a year earlier.

A large number of non-influenza patients had bronchitis. Several cases of chronic bronchitis applied, who were coughing more than usual, but who could not be said to have influenza. Of course, many of them were not seen again, and some of them may have

⁴ Boston Medical and Surgical Journal, February, 1890, p. 156.

been in the initial stage of influenza. Some of the bronchitis starting with this disease was quite persistent.

Pneumonia does not come within the scope of this paper.

Cases with debility and nothing else, continue to present themselves.

The relation of this disease to phthisis is quite interesting. A number of patients with consolidation and symptoms, which symptoms began with influenza, have presented themselves since the epidemic. Whether the bacilli found a prostrated patient, or, on the other hand, a phthisical patient had little power of recuperation, or whether again there is a yet closer connection, does not appear. During the epidemic a few patients applied with influenza and phthisis together, but who had not previously known that they were sick. They were much prostrated. The records are remarkably silent as to the old phthisis patients of the hospital as affected by the epidemic. Possibly some of them are dead, or are now too sick to continue to be out-patients. In this connection I am tempted to add the history of the four phthisical patients of mine outside the hospital, who suffered from the epidemic. One I have not seen since. One, a young man with a small consolidation at the right apex, but no active symptoms for three years, had influenza severely. During the height of it, he had a very few râles only in the old place, together with severe pain in that side. He got over his râles, and assured me last week that he is as well as ever. One gentleman of fifty, with trouble in each lung slowly progressing for I think seven years, had influenza severely, and shortly after had a hæmorrhage. He made a slow recovery, and seems about as usual. One girl of twenty, with advanced disease but earning her living, was in bed for weeks, and can now just crawl about.

The only other complication except measles, which I have already spoken of, is cystitis. A patient who had recovered from this had a return coincident with influenza, and began to recover again as that passed off.

There were three relapses with a week of health between. I have seen a larger number outside the hospital, and feel quite sure that there is a greater danger of relapse in those who are imprudent during convalescence. I have seen nothing of the three and four returns which are said to occur. It is well known that the epidemic had a somewhat sudden end, as is usually the case; and as is also usual, there are said to be occasional cases after it. Of this there seems to be no doubt. I myself have not seen them unless I had a case in my own person so late as April 19th. That attack I certainly should have called influenza had it been earlier.

Treatment.—I have given much quinine, and am entirely uncertain whether it controls pain or not. I have thought that it might help support a much prostrated patient, but have in those cases generally given alcohol as well. It certainly seems to be of service during the weakness of convalescence. Salicylate of sodium, which I stumbled upon through mistaking an early case for rheumatism, has, I believe, a good effect upon the pain. Antifebrin was only used in a few of the later cases. It seems to be of some use in controlling pain. The earlier headache, and, perhaps, the earlier sleeplessness, seem to be helped by bromide of potassium. I think that Dover's powder is useful, not only in relieving pain, but in relieving cough. Sul-

phonal seems to secure sleep to some patients who would not otherwise have had it. A few patients had taken more or less active cathartics before coming under my observation. The late Dr. Austin Flint was of opinion that in young and strong patients a "brisk purge seems to be useful." I have, therefore, given a purge, not particularly brisk, to a few patients with stuffed heads, and at the beginning of the disease. I must add that it sometimes seems to be useful, but not always; nor is the good effect always permanent, while it is not a treatment that I have cared to repeat in so debilitating a disease.

LATERAL DEVIATION OF THE SPINE AS A DIAGNOSTIC SYMPTOM IN POTT'S DISEASE.¹

BY ROBERT W. LOVETT, M.D., BOSTON.

LATERAL deviation of the spinal column as a symptom of Pott's disease, up to the present time, has been allowed very little significance or importance. Rarely spoken of at all, when it has forced itself upon the attention it has been considered as an occasional symptom of no especial significance, occurring rather uncommonly, and as probably due to the wearing away of the vertebral bodies more on one side than on the other. The only article which deals with the subject at all as its importance warrants is the one by Dr. Bartow, in the *Annals of Surgery* for July, 1889, to whom I am indebted for most of my ideas in the matter. He called attention to the existence of lateral deviation of the spine in most cases of dorsal and lumbar Pott's disease, insisting particularly upon the presence of rotation of the spine. And he made the characteristics of the deformity very plain by a series of admirable illustrations.

In the last nine months I have examined with regard to the existence of lateral deviation nearly every case of Pott's disease that I have seen, and I have been able to secure detailed and accurate measurements of some thirty cases. It is the results of these observations that I shall have the pleasure of briefly presenting to you.

The striking fact that at once presented itself in the observation of these cases was that lateral deviation of the spine was amazingly common. In fact it seemed, in all stages of the disease, to be almost universal in some degree. The notable exception being cases that were progressing particularly well under conservative treatment, and certain cured cases where evidences of active disease had ceased. But in the cases taken as they came first to the clinic, before treatment was begun, the presence of lateral deviation was universal.

Cases of cervical disease showed the least characteristic deformity; although inasmuch as the head was generally held obliquely to one side or the other, a certain compensatory twisting of the trunk was necessitated, but it lacked the characteristic features of the deviation when the disease was lower down in the spinal column.

I am aware that in asserting that a perceptible degree of lateral deviation of the spine is a uniform symptom of early dorsal and lumbar Pott's disease, I run the risk of awakening scepticism, and I can only ask that you will carefully examine cases with this in

¹ Read before the American Orthopedic Association at Philadelphia, September 18, 1890.