

THESIS FOR DEGREE OF M. D.

SOME NOTES ON THE EPIDEMIC OF INFLUENZA IN FLORENCE
AND ON ITS TREATMENT.

C. BLAIR WILSON.



SOME NOTES ON THE EPIDEMIC OF INFLUENZA IN FLORENCE
AND ON ITS TREATMENT

HISTORY.

The first epidemic in Italy is said to have been in 488 B.C., but the first epidemics are not supported by any trustworthy evidence. From 1367, however, data are reliable and since then there have been in Italy 32 epidemics, the longest interval without one being 52 years - namely 1657 to 1709. One thing strikes one at once and that is the slow spread of the disease in these earlier epidemics, and also its being limited in some of them to the north of Italy. In several cases it took 6 months before the epidemic spread over the country. Another very interesting fact is that the epidemics of 1557 and of 1580 spread from Sicily to Northern Italy and then passed over the Alps, instead of from Germany southwards, which is so much the rule that it has been called Malattia tedesca or the German disease.

The Italians are fond of giving names to anything, and this is well shown in this case, as every district seems to have had its own special name for

the disease. Judging by the names, the epidemics varied greatly in their most prominent symptoms, affecting the lungs, or intestinal tract, head or throat. The epidemics must also have varied greatly in severity as one finds it called the "graceful and healthy disease". Why it should be called healthy, I am at a loss to say. Another favourite name was Mal Mattiero which means that the headache was so severe that it rendered a person mad; while in several, the principal symptom seems to have been hoarseness and loss of voice.

The present epidemic began to show itself in Rome and Milan about the middle of December, and at the same time it appeared with indistinct symptoms among the garrison of Verona. After that, in the course of a few days it had spread over the whole of Italy. Here it lasted, one may say, from December 15th to the first week in March, and after that one only met with odd cases. Most of the cases occurred from January 10th to February 15th, roughly speaking. Without doubt many of the first cases escaped notice, as it is a common thing for colds to begin with a little shivering and with fever, and also stray cases of influenza are always common here.

The weather up to Jan. 2nd was warm and muggy , with a great deal of rain; after that we had a long spell of bright weather, with north wind blowing almost the whole time. This wind is always a cold one, but owing to the absence of snow on the hills it was less so than usual. At night the temperature went down to freezing and for about a week we had 2-5 degrees of frost. The result was that the extremes of heat and cold were great, as, in the sun at mid-day it was quite warm, becoming suddenly cold at sunset. The weather did not apparently affect the spread of the epidemic, tho' it affected its character. It finally died out in mild warm weather, having, in fact, spent itself out.

As far as I was able to observe, the servants at the hotels were the first affected, and in many cases they were almost all ill. Soon it became very general and among the first to be seriously affected were the soldiers; in one barrack about $\frac{1}{4}$ of the strength being down at one time. There being no published returns available, it is hard to say how many actual cases there were, but I heard on good authority that about January 15th there were 40,000 down. As this was an official statement it would be safe to presume

that it was a good deal understated. The postmen were affected largely but not noticeably in advance of the rest of the population. One peculiar thing I observed, namely that few of the drivers of the omnibuses were affected, while almost all the conductors were. Unless the conductors got the contagion from the passengers, it is difficult to explain. The stablemen of the Tramway Company were many of them ill, but none of the horses. On the whole, I think people much out in the open air escaped more than those confined much in doors. But that heated rooms are one of the disposing causes, as I have seen stated, does not hold good here, as Italians of all classes seldom use fires, as they say it makes them susceptible to cold. It was quite a long time, that is, a week or so, before some of the villages near Florence became affected. This is all the more extraordinary as there is a good deal of communication between them and Florence.

As a whole the epidemic was not of a severe character among the foreign residents and visitors. There was a great deal of discomfort and pain and lassitude, but the mortality was almost nil. Personally I saw only 1 fatal case, and that was an Italian.

Among the Italian population the mortality was comparatively a heavy one, and almost entirely due to chest complications, which were much more frequent among them than among the foreigners. One Italian doctor alone told me he had had 40 cases of Pneumonia. The reasons, or some of them, are evident. The lower class of Italians live on almost nothing, a few beans or chestnuts with some bread and an occasional glass of wine is the diet of a labouring man. The troops, who are fed very badly, having only two meals a day, and those small ones, and at the most 1d. a day for pay, were very severely affected. Another thing which increased the Italian mortality is the utter want of resistance Italians have to chest complaints. At first I thought that the popular and also the medical views of the dangers of chest disease here were exaggerated, but I find they are only too just. An Italian with consumption never expects to last many months. The bad food and early marriages are probably the causes of this. The dangerous cases were most of them complicated ones and due to relapses. The only dangerous cases I saw, except one of Cardiac weakness to be mentioned later on, were cases which had been allowed out soon, had had a relapse, and

developed chest complications. The severity of the attack could not, however, be judged by the severity of its symptoms, many of the cases resembled slight cases of diphtheria, in that the patient felt ill, perhaps had only some lassitude, but for a long time afterwards the pulse would be frequent and weak, & the patient practically good for nothing, & requiring perfect rest.

ETIOLOGY.

There can be no doubt that influenza is a specific disease, which has great variety in its symptoms, much as one sees in the secondary symptoms of syphilis. That it is due to some microbe is almost certain, though as far as I have seen, no one has yet been able to produce Influenza from cultivation. But except by microbes, and microbes capable of very rapid multiplication, it would be impossible to explain its rapid spread, and the astonishing fact of it in one day being communicated from Tomsk to St. Petersburg, a distance of 2,000 miles.

The present epidemic can only be explained by atmospheric infection, which was evidently the principal means of its spread; but that it is both contagious and infectious, I am certain, tho' I do not think the poison is a virulent one and therefore many

while others were only attacked after a lengthened exposure to the poison. The fact of its being contagious and infectious, I think one sees well shown in the short note of the history of the disease I have given, where, as I have said, it several times took 6 months for the disease to spread through Italy. Now that there are railways, posts, etc., the spread of a disease of a contagious or infectious character is a much more rapid thing if no preventive measures are taken, and the result is that this epidemic spread throughout Italy in a few weeks. An Italian writer, describing the epidemics of 1803, 1831 and 1837, mentions a fact which, if true, is interesting. He states that the atmosphere was so polluted that cats, dogs, and horses as well as other animals became ill in large numbers, and that the birds of passage did not stop as usual. The following cases show its infectious character pretty clearly :-

Mr. and Mrs.M. and their household are all well. Mrs.M. gets a case of dresses from Paris which are laid out in her room by her maid for her inspection. 24 hours afterwards, Mrs.M. feels out of sorts, has shivering, headache, and next day, that is about 36-40 hours after, all three, - Mr.M., Mrs.M. and her maid

have the symptoms of the disease. Now these three were the only people who were in the room or at least who were there for any time.

The infectious character is also shown in the way post office employes in several places were the first attacked, the infection presumably being brought by letters and parcels. The following cases of contagion came under my notice :-

Mr.T. lives outside the town. At his Villa and round about, there is no influenza. He goes out to dinner, sits next a lady who is sneezing and coughing. The next day he is quite well, but that night has shivering, severe headache, pain in the limbs, etc. When I see him he has a temp. of 102.5 Pulse of 115.

Mr.B. has a visitor who has a bad cold. 2 days after I am asked to go round as Mrs.B. and 2 of the children are ill.

A lady brings her child from a quarter of Paris where influenza is rife, to place her at school here. The child develops influenza, it spreads thro' the school which is broken up and the children sent home. This was apparently the real commencement of the disease in Florence.

But the most illustrative cases are some

published by the French. The following is reported by Prof. Grasset of Montpellier:-

A gentleman goes from Paris to Frontignan. He gets there on Dec. 15th. Suffering from Influenza on the journey, he keeps to his room on the 16th. On the 17th, 10 people dine with him. On the 19th, 5 of the 10 have contracted influenza. On the 18th he goes to his office, on 20th his clerk, who lives at a small village, Vie, a few kilometres from Frontignan, is in his turn taken ill and 5 days after, his mother. From the 23rd it spread rapidly; though up to then there had been no cases at either Vie or Frontignan.

On the training ship, 'Bretagne' at Brest, there is a crew of 350 men. On Dec. 11th an officer living on land receives from Paris 2 large cases which he unpacks himself. He is down with Influenza the next day, and the day after, his wife and 3 servants take it. These are the first cases at Brest. On the 14th he goes on board the 'Bretagne' and stops there 24 hours. On the 16th there is a case on board, on the 17th it spreads and 20 to 45 men a day are attacked. All the officers invalided to their homes, take it to their families. At the same time the 2 other training ships 'Austerlitz' and 'Borda' anchored near

the 'Bretagne' have not a single case on board. This last point is very interesting, as one would have expected the poison to have been carried by the atmosphere, if not by communication.

In the cases of 2 families here seeing a great deal of each other and one living outside the town.

Family A. 1st mother and daughter ill, then other 4 daughters all ill and in all coryza was well marked.

Family B. 2 children are supposed to have caught cold. The children had had sneezing, but when seen they both had fever with bronchitis & severe paroxysmal cough. 3 out of 5 of the grown-up members of the family, and 4 out of 5 servants take influenza, and in all, cough is the severe symptom. The 2 members who escaped had also paroxysmal coughs, so probably the attack was aborted in their cases. At this time the weather was mild and coughs were not the rule. Therefore presumably the members of the respective households caught the infection from each other, and took the same type of disease. The incubation was as a rule about 36 to 48 hours. In some cases it was as short as 24. After the first cases it was practically impossible to fix the length of the

incubation, but it probably had greater limits than those I have mentioned.

TYPES OF THE DISEASE.

These can only be called rough divisions as one type tended to run into the other, but there were enough cases of each to justify the classification.

1. In this the symptoms of Influenza proper were well marked, namely, running at eyes and nose, and headache. Most of the cases at the beginning were of this character.

2. Neuralgic. Here neuralgias were the marked symptom, including pains of an indefinite character. This was the most common type taking the epidemic as a whole.

3. Asthenic. Here patient felt weak and out of sorts, but there was nothing definite and many of the cases only came for advice because they felt unable to do anything, perhaps 2 or 3 weeks after the attack.

4. Bronchitic. Bronchitis was the predominant symptom. This became very common when the weather was cold and many cases which would be classed

as Neuralgia at the beginning afterwards developed bronchitis.

ONSET of the disease was SUDDEN or GRADUAL.

Sudden. This was far less common than the other. I met with about 6 examples. In 2 the patients were at meals when they suddenly became so faint that they had to be helped to their rooms. Neither of these patients were delicate. One was a healthy boy of 15 and the other a lady of about 25 in perfect health up to that time. The other cases were of the same sort. It may have been a coincidence, but all these patients made a rapid recovery and did not feel the effects nearly so long as is usual. In two cases I saw a few hours after the attack the temperature was respectively 101 & 103.2. In the gradual form the patient felt ill for a day or so before any severe or marked symptoms appeared.

The disease lasted from 3 to 5 days in the mild cases, judged by the temperature, but frequently was much protracted even when there were no complications.

SYMPTOMS.

The attack generally commenced with more or less shivering. The patient might feel cold for several

hours. Actual rigors were rare. A feeling of cold water down the back was commonly complained of. After shivering for a longer or shorter time, fever came on, as a rule it was not very high, - and then began the almost constant symptom, viz. headache. The headache at this stage of the disease was a dull heavy aching of the whole head as a rule. Occasionally it was principally frontal or occipital, the latter was well marked in two anaemic cases. It was most persistent, and tho' it could be relieved for the time being, it recurred and recurred. That it was not entirely, or always due to the fever was evident, as it often persisted after the fever subsided. In my own case it came on early each morning about 6 a.m. and passed off about 1 almost suddenly. I had no fever, except a little late on in the afternoon. At this stage in the earlier part of the epidemic, there would be more or less coryza in some cases the eyes were greatly bloodshot. Besides the headache there were pains in the bones of the arms and legs, the latter propagated from pain in the loins. The pains were not limited to the joints, tho' they were frequently there. Both upper and lower limbs were affected or perhaps only the upper or vice versa. The legs felt very weak almost invariably.

Occasionally the pains were distinctly muscular, but more often seemed to be in the bones. The fact of the joints not being specially affected makes an interesting difference from rheumatic fever and this point was well marked in a case that afterwards became a true rheumatic fever with swelling of the joints. Several patients said they felt as if they had been beaten all over, their bodies ached all over and pain was much increased by movement.

Sooner or later after the onset, but as a rule preceded by the pains in the bones and the dull headache, neuralgias came on. One of the first was neuralgic pain of the muscles of the eye. This was so marked that sometimes one found a person moving the head to look at an object so as to avoid moving the eyes and thus bringing on the pain.

A pain peculiar to the disease, as indeed were several others. was pain both on movement and to touch in one or both Trapezii muscles. Generally both were affected. This I have seen described as a marked symptom in former epidemics. Often associated with it was suboccipital neuralgia. In some cases one could follow out the distribution of the nerve by the discription the patient gave of the pain.

There was often pain also in the shoulder joint itself. The pains in the chest were one of the best marked and most constant symptoms of the disease. They can be divided into 3 sets.

1. Intercostal Neuralgia. This was often severe. It generally affected the lower intercostal nerves. There was no difference in the sides affected. Often I noticed that one only rarely got the tender axillary point, and generally the most painful spot was near the spine. Associated with it was also frequently muscular rheumatism of the chest and also scapular muscles. Both the neuralgia and intercostal pain was of a most shifting character, going from one side to the other repeatedly. Less often both bases were affected at the same time.

2. Pain of a sharp cutting character both with long inspiration and also on coughing, simulating greatly the pain of pleurisy. This pain was generally localised persistently to one spot. Often the finger could be put on the exact point. I saw it well marked in 6 or 8 cases, and of these 3 had it in the right mammary region. The other cases were about evenly distributed over the regions of the chest. One of the 1st

cases I saw of influenza, a lady rather delicate but most energetic, had it markedly in Left Infra axillary region, and I was much surprised at never being able to detect any pleurisy. As the lady had slight dullness of one apex with a family history of consumption, it was a case where one would have expected it. Some symptoms of pleurisy were, however, invariably absent. The respiration was not hurried unless there was fever and then not more than the fever would account for. There was no cough, or if the cough was present it was not that of pleurisy. In the case mentioned the temp. twice went up to 99.6. Respir. 26. Pulse 96 weak. She complained of weakness, & some headache, but had no other characteristic symptoms. Two days after, however, her mother developed well marked influenza. Having suffered myself from this pain I know that it is anything but imaginary, and certainly I should have been inclined to say I had pleurisy.

3. A continuous dull heavy pain over the lower part of the Sternum. This was pretty constant in cases with bronchitis or cough. All these pains were most persistent.

During the latter part of the illness and often persisting for a long time afterwards, were neuralgias.

Hemicrania and neuralgia of the 5th Nerve were probably the commonest. One or all the branches of the 5th might be affected. Toothache was in a few cases a severe symptom, every tooth aching. These neuralgias were often severe in people who had never known what such a thing was before, and oddly enough even in them it persisted or recurred on slight exposure to cold, when they had recovered their usual health.

One found the patient very likely crouching over the fire, or the cold stage might be over and he would complain of fever. Expression dull and heavy. Face perhaps flushed. Running at eyes and nose, this only occurred in the earlier part of the epidemic and lasted a short time, except in 2 cases where it came on late on in the disease after the other symptoms had been present for 4 days. Skin dry but subject to occasional perspirations. Tongue coated with whitish brown fur; breath frequently offensive. Sometimes fauces and larynx were red with some swelling of the tonsils, and rarely ulceration. Temperature $99\frac{1}{2}$ to $103\frac{1}{2}$. Respirations 24 to 28 and probably some cough. Pulse 84 to 120.

During the course of the illness there was usually anorexia. Here, differing apparently from the

general rule, the bowels were constipated, but unless care was taken diarrhoea was easily set up. Flatulence was much complained of. Slight icteric tinge of the ocular conjunctiva, but symptoms of jaundice were rare. Except at the beginning of the epidemic there was more or less cough. This was of a paroxysmal character and was out of all proportion to what the physical examination of the chest would lead one to expect. As a rule the examination gave negative results, except slight roughness of the respiratory murmur in the scapular and interscapular regions. I am not speaking of cases of bronchitis, which will be spoken of under complications. This cough frequently persisted after the patient was convalescent.

The Pulse as I have said varied greatly in the different cases, but as a general rule it ran from 84 to 120 varying with the temperature. Except at the beginning with the initial fever when it was frequently full and bounding, it was weak, and sometimes Hyperdicrotic and it did not react to stimulation in the way one would have expected. In some cases the great cardiac weakness was what compelled the person to seek advice, after getting over an apparently slight cold.

Temperature. This was decidedly peculiar to the

disease. Unluckily private patients object to a system of waiting to see what the chart may be like. Therefore I have not charts which are typical. But what made the temperature peculiar was the fact that there was no fixed time in the 24 hours at which the temperature was sure to rise. In some cases the rise was in the evening, in others in the morning, &c. In quite a large number of cases the rise began in the forenoon and the temperature gradually reached the normal between 6 and 8 p.m. There was a great difference in the duration of the fever during the 24 hours. In some cases there would be fever for 10 hours, in others the fever would only last 2 or 3 hours. It was this short duration, especially when the fever was slight that led to mistakes in considering the illness past, letting the person out and getting a relapse as a consequence. Many cases had a slight evening rise for some time, This was generally of little importance and was due to weakness. In uncomplicated cases the actual fever only lasted from 2 to 4 days as a rule, but there were exceptions where it lasted 10 to 14 days without any apparent reason.

URINARY SYSTEM.

In several cases I examined there was nothing of

importance, except a large deposit of urates; in fact, the urine of fever. I did not find albumen.

COMPLICATIONS.

Epistaxis. I saw this in 3 cases, but in none was it serious.

Bronchitis. This was by far the commonest complication, and it presented some peculiar characters. It affected almost entirely the larger bronchii. The cough was severe, and paroxysmal, generally worse in the morning and evening. Expectoration slight, But the interesting point was the way it was frequently limited to one side of the chest and perhaps a small area of that side. Next time the patient was examined it had perhaps changed over to the other side. This was very well marked in 2 children who had it severely, but I also came across it in 2 or 3 adults. Excepting the 2 children mentioned it never caused respiratory distress of any moment.

PNEUMONIA.

This in the Italians had a great tendency to become gangrene of the lung and was the cause of numerous deaths. I had not any cases myself, but in the 2 cases of pneumonia I saw, both cases of relapse, it was of a progressive character.

Case I. An Italian. I saw this case in consultation as also Case II. I found patient with a temperature of 104. Pulse weak 120. Respirations 40. He was in a typhoid condition. Brown furred tongue, sordes on the teeth, and muttering delirium, tho' he could be made to answer. It was the 6th day of illness. The right back up to angle of scapula was dull and gave the typical signs of Pneumonia. Comparative dulness also in Posterior half of the right infra-axillary region with faint tubular breathing. The patient had been purged which had set up diarrhoea and had had antipyretics. He was given brandy every 2 hours, with ether and musk. I saw him 2 days after. Dulness now extended to spine of scapula. Pulse 130. Temperature still about 104. Respirations 40-44. In fact was moribund and died the day after.

Case 2. Lady of 66. Had gone out driving and got a chill. When seen lips were cyanotic. Respiration 36. Pulse 120 weak. Left lung dull up to 1 inch from angle of scapula. Loud tubular breathing with Rhonchi & sibilant râles over both sides of back. Next day it had reached half way up the scapula. She made a good tho' slow recovery.

CONGESTION OF THE LUNGS.

Slight forms were fairly common, but I only saw one severe case.

Mr.G. age 50. Delicate, extremely nervous. Had had severe attack of Influenza 2 months before with a relapse. He had gone out for a drive and got home rather late, shivering, pain and headache in fact had got a 2nd relapse. When I saw him on March 4th he was suffering acutely from pain in left supra axillary region. Cough dry and hacking. Bowels constipated. Temperature 101. Pulse 96. Auscultation revealed fine friction over the lower part of left axillary region and left base.

8th March. Pain shifting about chest, but pretty constant at both bases. Required Morphine to procure

sleep. Friction coarser, but over lower 3 inches of left base there is now dulness with absence of vocal Fremitus. Respiratory murmur absent. Vocal Resonance absent. Expecterated a little bright blood with mucus after a severe fit of coughing.

11th. Left base much the same. Right base dull up to 2 inches from angle of scapula. Vocal Fremitus and Vocal Resonance well marked except over lower 2 inches. Breathing faint bronchial, at one spot almost tubular. Still suffering much pain and is prostrate and in very low spirits. Expecterates a good deal of blood most of it bright, some venous mixed with mucus. Face very slightly cyanotic.

13th. Patient become very collapsed. Pulse which had so far kept about 100, quickly went up to 120 and towards night became 132. Pain continued. Chest now dull up to spine of scapula. Breathing very faint. Vocal Fremitus and Vocal Resonance present but less marked. Still a large amount of blood in expectoration.

15th. Condⁿ the same only Pulse is better. Patient all along was freely stimulated and when heart began to

fail digitalis was given. The temperature all along varied between 100 in the morning and $101\frac{1}{2}$ in the evening.

He began gradually to improve about March 20th getting stronger, expectoration becoming less and by April 5th his lung had cleared up though the breathing was faint. This was I believe a severe case of congestion.

He later however developed phlebitis of the Right leg. Oddly enough he had no fever when it came on and described the pain as being down the external part of the thigh. There was no pain along the line of the vessels at first tho' the veins could be felt like hard cords. The leg became enormously swollen. I saw another case of phlebitis of the Right leg following influenza and I have mentioned it as it is, I think, a rare complication.

OTITIS, generally double, was occasionally met with but at a town 70 miles from here it was exceedingly common.

Relapses were very frequent, and many of the so called second attacks would, I think, be more properly

called relapses. For an indefinite time almost, the least chill would bring back the pains or neuralgia, but not a regular fresh attack. Personally I have only met 3 cases of bona fide second attacks with fever and other characteristic symptoms. One case is interesting and I will mention it briefly.

Mr.P. aged about 40. Had a great deal of trouble owing to the death of his favourite son. He got a chill, with shivering, temperature 104 in the evening and $103\frac{1}{2}$ next morning. Pulse 100, he had old standing mitral incompetence. During the night and for the next 36 hours he remained in a semi-comatose condition and afterwards could not remember anything that had happened. For several days after, when his temperature, which now was about $99\frac{2}{5}$, during the greater part of the 24 hours, went up he became delirious. He however did well except one night when his pulse became markedly intermittent. The rate of the pulse even without digitalis never went above 100 and for most of the time was from 80 to 90. His first attack of influenza was 3 months before.

It is cases of this kind which gave rise to "La

Nona", which has been mentioned largely in the press, but no Italian doctor I have ever come across has seen it or seen it described in a medical journal.

As illustrating the effect of influenza on the heart the following is an interesting case :-

Miss B. age about 29. Not very strong. Has long been subject to what she calls "Danube fever." This lasts 2 or 3 days and there is always a good deal of pain with it. The day after the fever leaves her she generally gets up and by next day feels perfectly well. Early in January she was laid up for 3 days with what she thought was her usual fever. When the fever left her she got up out of bed but at once fainted on trying to walk to the sofa. For nearly six weeks she had to be kept flat on her back in bed, and even the raising of her head with 3 pillows caused her to faint. all along the pulse was very weak, so that at times it could not be counted. Rate about 96. Auscultation revealed nothing except that 1st sound 1 inch inside the mitral area was rather heavy. Apex beat could not be felt. There was no murmur. Except occasional palpitations after dancing a great deal she has never been

bothered with her heart. How long it will be before she is quite strong again I cannot say, but she is so far only able to walk for a few minutes at a time.

TREATMENT.- PREVENTIVE TREATMENT.

Of this I cannot say much. I tried Quinine frequently but it did not prove very efficacious though I think those taking it had slighter attacks than usual. I saw in a French paper that essences of cinnamon, ginger &c had proved most efficacious, being used internally and as inhalations, but personally I am sceptical about it, for as far as inhalations are concerned to be of any service they would have to be in almost continual use and also it is not a disease of a local nature and therefore it is hard to see how this treatment could be efficacious. Of one thing however, I am certain and it is that giving antipyrin as a preventive does decided harm by lowering the patient's strength without being of the least use in warding off an attack of influenza, rather if anything favouring it. My advice has always been to keep out in the open air when the weather was fine, to live well and at once to lay up if there was any malaise or indisposition.

Being much in the open air is I consider of great use, and in cases of people below par giving a tonic to improve the appetite.

On an attack coming on, the first thing is to get a patient to bed and keep him there. Flannel should be worn and a scarf round the neck, this will frequently prevent the troublesome suboccipital neuralgia. Almost all the cases here being of a markedly asthenic type I as a rule gave stimulants from the beginning and fed up as much as possible. This prevented more than anything else the persistent neuralgias which were liable to occur. The pain in the limbs, headache and general malaise were not apparently due to the rise of temperature, and only rarely was the temperature high enough to require treatment. As a matter of fact however owing to headache needing treatment and as antipyrin was frequently used for that purpose the temperature was also treated, but often the headache disappeared tho' the fever persisted and vice versa. Owing to irregularity of the fever it was difficult to treat it satisfactorily by antipyretics. Not only did its time of onset vary in different patients, but also

from day to day in the same patient. In one or two occasions where it persisted without any apparent cause a few doses of Quinine checked the rise. In many cases an evening rise up to $99 \frac{2}{5}$ or thereabouts persisted for some time and seemed to be due to weakness. The most important symptom, at least for the patient, was the severe headache and to a less extent the pain in the limbs. For this I prescribed Antipyrin gr.V. to VIII. together with Quinine 2-4 grs. As a rule I gave 2 powders at an interval of 2 hours and then a powder every 4 or 6 hours according to the severity of the case. I tried Phenacetin in 2 cases only so am not in a position to say much for or against it, but I did not find that it caused less depression than Antipyrin as I had been led to expect. In rheumatic subjects I prefer the salicylates. As soon as possible I stopped the Antipyrin or salicylates, since except to alleviate the distressing pain I think they did harm. In a nervous subject after trying everything I found a combination of Antipyrin & Bromide of ammonium acted like a charm. In treating the neuralgias and headaches one found that those coming on late in the

disease were much the hardest to cure and tho' one might cure them temporarily they had a great tendency to recurr. Quinine 2 grs. Morphia gr.1/8 proved useful, but free stimulation with a tonic of Iron, Arsenic, or Nux Vomica did best.

The pain in the chest, both the intercostal neuralgia and the pain simulating pleurisy were most intractable. After trying various liniments A.B.C.liniment, camphor and turpentine, belladonna &c I found strapping the side with ordinary plaister was the best. In one case the pain was effectually stopped and did not recur by painting with Tinct.Iodi 15 parts and Turpentine 20 parts. This last is rather a severe treatment, but if I had known of it sooner I should have given it a larger trial.

The bowels generally required opening, the only caution necessary was that the aperient should not be a strong one as diarrhoea was liable to be set up and was of rather an intractible sort. Pil.Hydrarg.Subchlor.Co. gr. ii or iii was useful in cleaning the tongue.

The diet I limited to milk, broth and eggs beaten

up. In severe cases I had patients fed frequently and in small quantities about every 2 hours, and gave occasionally pepsine when there was any threatening of indigestion.

As a rule I found brandy was all that was wanted to keep the heart acting well. Strychnine being given as well. In two cases I had to give Digitalis freely but one of these was a case of long standing Mitral insufficiency. As soon as the fever had gone and the digestion was stronger I started arsenic and iron, as a rule using the Ferri Tartrate and Sodii Arseniate in a pill. The anaemia afterwards was frequently well marked and much more persistent than one would have expected.

In all cases a tonic such as Nux Vomica with a bitter was useful in convalescence to improve the appetite. The cough was generally easily allayed. In a few cases it was peculiarly persistent and seemed to be simply due to an atonic condition. In these cases getting out and going about did most good. This requires care, but luckily we had little rain and much sun, so that it was easier than it would have been at home.

Before allowing a patient out, however, it was necessary to have the temperature taken several times during the day, as frequently there would be a rise during perhaps 2 hours about the middle of the day, just when a patient would go out and if he did, a relapse was almost a certainty. It is as well to keep patient confined to the house for 3 or 4 days after the fever has left and care against cold must be taken for a long time. Thus he ought not to go out after sunset. The difficulty I found was to persuade patients of the great risk of a chill. The cases of Pneumonia I saw needed stimulation and digitalis. A change of air to a place which is warm so that the patient can go freely out in the open air is of great use in getting the patient back to health and in some cases the only effectual means.

In several cases for 2 or 3 months afterwards even when great care was taken I noticed in patients a tendency to catching cold, neuralgias and coughs.

C. BLAIR WILSON.

9 Via Tornabuoni,
Florence.