A Lecture ON COMPLICATIONS OF RHEUMATISM IN CHILDHOOD.

DELIVERED AT THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

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In my first lecture upon this subject I made some remarks upon rheumatic rashes and purpura, venous thrombosis and early rheumatic tachycardia, mastitis, and epistaxis. This lecture was published in the *BRITISH MEDICAL JOURNAL* of January 7th. There still remain a number of interesting points in the history of rheumatism in childhood, with some of which, obtained from the same series of 600 cases, I shall attempt to deal in this lecture.

Pleurisy.

The first lesions for our consideration are those of the respiratory system. Pleurisy is well recognized, and I would emphasize that it is a very frequent occurrence when there is severe rheumatic carditis, and that you will seldom see a *post-mortem* examination made upon one of these cases without finding evidences of inflammation of one or both pleurae. Two common situations are at the spots where the right and left lungs overlap the pericardium; another favourite one is at the base of the left axilla. This pleurisy is usually fibrino-plastic, and friction is frequently detected during life. It should not be forgotten that a child suffering from rheumatic carditis with pain over the left side of the chest may be complaining not of cardiac but of pleural pain, and pleural friction should be sought for. Again, there is some importance in distinguishing between pleuro-pericardial and pericardial friction. The double rhythm, respiratory and cardiac, of pleuro-pericarditis is often associated with internal pericarditis, but this need not necessarily be the case; and as pleuro-pericarditis itself is of less grave import than pericarditis, the differential diagnosis is of practical value.

Rheumatic pleurisy complicating carditis rarely gives rise to an exudation sufficient in amount to need paracentesis: yet this happens occasionally, and in two cases of my series it has been called for on account of the embarrassment the effusion was causing to the damaged heart.

One, in which eventually the diagnosis was fully confirmed by *post-mortem* examination, was an exception of this kind, for a considerable quantity of turbid fluid had been withdrawn from the left chest during life. It is interesting to record that Goldscheider, some fifteen years ago, isolated from a pleural exudation of a case similar to this a minute diplo-streptococcus, and in another of my cases a similar micrococcus was isolated, and it is found in experimental rheumatic pleurisy. We naturally ask ourselves how frequently rheumatic pleurisy may occur irrespective of carditis or other rheumatic lesion. It would seem rare, at least a pleurisy with any considerable exudation would seem rare, although I am not quite sure that "dry" pleurisy accompanied with considerable pain is not more frequent in the rheumatic child than we perhaps recognise.

Pneumonia.

Pneumonia, which, with pleurisy, is a frequent occurrence in experimental rheumatism, is also, I hold, met with in children. It is bronchopneumonic in distribution, fleeting, and apt to give rise to signs which point to a consolidation more extensive than is actually the case. The rheumatic illness in these cases is likely to have an abrupt onset and a considerable rise of temperature which may readily subside.

I believe the fact that the physical signs may be more extensive than would appear to be probable from the size of the actual lesion is dependent upon the associated pulmonary collapse around the pneumonic area.

I will now illustrate this occurrence of pneumonia. The first case was a fatal one, which, for our purpose, is important because it enables us to assure the diagnosis by *post-mortem* examination.

A boy aged 5 years was admitted to the hospital in June, 1901, for acute heart disease, arthritis, and bronchopneumonia at the left base posteriorly. In the hospital pericarditis developed, and later a patch of pneumonia on the right side. Death resulted from pericarditis. The *post-mortem* examination showed carditis, arthritis, and small areas of bronchopneumonia. Dr. Paine isolated the diplococcus from the pericardium, cerebro-spinal fluid, joints, pleurae, and lungs. The experimental investigations and morphological appearances distinguished this micrococcus from the pneumococcus.

The second case was also fatal:

A boy aged 6 came to the hospital in June, 1902, extremely ill. The history was that in January he had suffered from rheumatism, with severe heart disease, from which he had never really recovered. He had on admission severe carditis and pleuropneumonia on the left side, but there was no arthritis. Death occurred from heart failure, and the *post-mortem* examination showed endocarditis, and adherent pericarditis, and bronchopneumonic patches in both lungs, with some pleurisy on the left side.

A third case recovered:

A boy aged 6 years, who had suffered from rheumatism when 3 years of age, had been ill for a week with headache, vomiting, pains in the ankles and knees, and fever (100.6° F.). On admission respiration was grunting; there were pericarditis, endocarditis, and arthritis. In the lower lobe of the right lung there was a patch the size of the hand over which there was dullness, tubular breathing, and sharp crepitation. On the left side there was pleurisy. The pulmonary signs rapidly cleared, and the pericarditis was recovered from. I saw this boy again two years later for a mild outbreak of arthritis, and he had then a well compensated mitral lesion.

I have been told, but I have no personal acquaintance with the fact, that pulmonary affections in rheumatism occur more frequently in some parts of England than in others, and this would certainly not be out of keeping with our knowledge of the variable nature of the disease. In experimental rheumatism some pleuropneumonia is frequent, but we must not forget that then a large dose is injected directly into the venous circulation, whereas in the human being we must believe that the disease is generally a result of the summation of small doses.

In all considerations of rheumatic pneumonia associated with carditis it is difficult not to fall into the mistake of confusing certain changes in the left lung that may result from a severe carditis, including pericarditis with effusion.

We have only to see a necropsy upon a case of severe carditis with great dilatation to realize the way in which the lower lobe of the left lung may be pushed from the front of the chest and crowded into the back. It needs no considerable pericardial effusion to achieve this, and the dilatation in itself is the main factor. As a result there are frequently signs of pulmonary collapse at the left base, together with congestion.

In pericardial effusion Dr. Ewart finds a patch of marked dullness at the left inner base, square in outline, which may even extend across to the right side; over this respiratory sounds may be wanting. It is not with the lesions of this nature that I am concerned, but with what *post-mortem* investigation has shown to be a bronchopneumonia.

Acute Pulmonary Oedema.

I come next to a rare and alarming occurrence in rheumatism. This is acute oedema of the lungs, of which I have seen three cases, two of which were fatal. In each of these there was severe active rheumatism with carditis and numerous other manifestations. Although it is rare, I wish to lay stress upon the reality of its occurrence as a thing quite apart from the passive congestion that is so often met with in advanced cardiac disease. It is a rapid event, commencing, just as does renal pulmonary oedema, at the apices and not at the bases of the lungs.

The first case, the one that recovered, was a good example of the condition.

A girl aged 5, suffering from severe chorea and carditis with arthritis and nodules, although extremely ill, was holding her own until one morning her breath became laboured and her face anxious and cyanosed. I found numerous fine râles below the left clavicle, which, spreading rapidly, soon involved the left upper lobe and later appeared in the right. Free stimulation and the giving of oxygen appeared to arrest the process. At any rate the child rallied and made a good recovery, although there was necessarily a damaged heart left.

The two fatal cases were of the same severe type, and the necropsies enable me to speak with confidence as to the lesion that is found. The lungs are firm, and on pressure a frothy fluid exudes from the doughy tissue. The upper lobes are more affected than the lower. Microscopic examination shows that the condition is not inflammatory, but that the alveoli are blocked with an albuminous fluid. I presume these are examples of acute suffocative pulmonary oedema which have been described by writers in various infective conditions.

Sharp râles, spreading rapidly in the upper parts of the lungs, in a child gravely ill with rheumatic carditis, should suggest the onset of this dangerous complication, and indicate, I believe, that all depressing remedies should be discarded and recourse had to stimulation with the administration of small doses of morphine and atropine hypodermically, and oxygen inhalations.

Bronchitis.

Bronchitis has been included by some among rheumatic manifestations, but I have not been able to convince myself of the reality of this. I have seen some suggestive cases, but in the face of the frequency of the two diseases in this country not a sufficient number of examples to enable me to recognize their rheumatic nature.

Abdominal Symptoms.

When we come to the abdominal symptoms of rheumatism in childhood, we are at the present time in considerable difficulty. Possibly in another ten years with my present opportunities I may myself feel less nebulous upon this subject.

I would single out appendicitis first because it is a disease of such extreme importance, and would repeat here an observation I have made several times before—that a monarticular acute arthritis of the right hip-joint may closely simulate appendicitis. There is tenderness over the region and some resistance, there is fever, and the right leg may be flexed. If you are in doubt, it is important to examine carefully, not only the heart, but also the smaller joints; for I have known one of these cases betray the truth by an arthritis occurring in the middle toe of the opposite foot. I am a firm upholder of early operation in appendicitis in childhood, particularly when there is reason to believe that the appendicitis is going to show itself by pelvic signs, but whoever upholds early operation must be prepared to face the great responsibility of an error in diagnosis. In childhood the diagnosis of appendicitis is surrounded with great difficulty. A right pleurisy and constipation are two glaring examples of this, but rheumatic arthritis is also worthy of attention.

It is a curious fact that I have never seen a damaged appendix in a necropsy upon fatal rheumatism. There can be no doubt that acute appendicitis during an attack of acute rheumatism is very rare, and my series does not contain the history of a single case in which appendicitis occurred of sufficient severity to come to the proof of operation, for many of these children have been under supervision for a considerable time. This points strongly to the view that acute appendicitis is not a rheumatic phenomenon. I have, it is true, notes on several cases of mild appendicitis occurring in children suffering from chorea, or who have had rheumatism, but the number is not sufficient to escape from the probability of coincidence.

I can, then, hardly believe that appendicitis is a direct result of rheumatism or even that the rheumatic are particularly disposed to that disease.

I should like to illustrate by one striking example the simulation of appendicitis by rheumatism.

In August, 1905, a boy, aged 10½ years, was admitted to the hospital extremely ill with severe pain in the region of the right iliac fossa. For twelve days he had suffered from recurrent attacks of abdominal pain, lasting from twenty to thirty minutes. There had been no vomiting or diarrhoea. He also complained of rheumatic pains in the feet, legs, hands, and shoulders. His temperature was 101° F. and he looked desperately ill. His doctor had sent him in as a case of urgent appendicitis for immediate operation and had felt a tumour in the right iliac fossa the size of a Tangerine orange. There was, however, grave aortic disease, and there was also a history of acute rheumatism at 5 years of age, and with this, too, a strong family history. His cardiac condition deterred me from any hasty interference. I was unable to satisfy myself that the whole illness was not rheumatic, more particularly as there was some pleurisy at the right base, and referred pain in children from such a lesion is, we all know, very liable to simulate appendicitis. I was also doubtful as to the presence of a tumour. The pains were

relieved by salicylate of soda, but later he had a relapse and the pain in the abdomen became so severe that perforation was now suspected. Once again the cardiac lesion kept every one on the cautious side, and then the development of rheumatic nodules seemed to clinch the diagnosis. After a long illness the boy recovered and eventually left the hospital.

I saw him again in March, 1906, for extreme nervousness associated with his severe aortic lesion, and there could still be detected some nodules. In September he died in a relapse, and the appendix and caecum were quite healthy.

This was a most difficult case, not only simulating appendicitis but also typhoid fever, and I feel sure if it had not been for the acute and severe valvular disease I should have been very near advising an exploratory laparotomy.

Another case I remember escaped the kind attentions of the surgeon, not "by the skin of his teeth," but by the slight swelling of the middle joint of a toe.

Leaving now the negative evidence upon the subject of rheumatic appendicitis, I will mention some positive points in reference to abdominal symptoms in rheumatism.

You will repeatedly meet with pain referred to the abdomen in the early stages of rheumatism in childhood. It is generally situated above the umbilicus, and more often to the left than the right of the middle line. On examination you often find no obvious explanation.

There are two suggestions that strike one as both feasible—that these pains are fascial or neuritic pains, or that they are gastric or at any rate intra-abdominal. An analysis of the other symptoms that have accompanied this epigastric pain leads me to believe that both explanations may be true.

In some cases this epigastric pain is associated with arthritic and other fascial pains, and there is no obvious disturbance of the alimentary system. In such the inclination is to believe that this is a fascial affection. In other cases there are a furred tongue and indigestion, with, possibly, vomiting and diarrhoea, and then one inclines to the belief that the origin of the pain is gastric or intestinal. Rarely it results from splenic infarction.

In acutely fatal cases of rheumatism vomiting and diarrhoea may mark the commencement of the illness, and this is sufficiently important, I believe, to make it worth while to give three illustrations.

S. E., male, aged 4 years and 11 months, was seized with pains all over the limbs, vomiting and diarrhoea on May 29th, 1902. Acute arthritis and carditis rapidly followed with death in the middle of June. The necropsy showed the lesions of acute rheumatism and the micrococcus was isolated. There was a strong family history of rheumatism in this case.

A. R., male, aged 8 years and 9 months. Had already suffered from three attacks of rheumatic fever. In January, 1903, he was seized with vomiting, general illness and sweating, and was admitted with severe heart disease. This boy lingered on with active rheumatism in spite of large doses of salicylate of sodium, and died in May of the same year.

W. P., male, aged 7 years, was seized with abdominal pain and vomiting on April 17th, 1904. This boy rapidly developed arthritis and carditis and died in May.

There are no *post-mortem* lesions that I am aware of that explain these early abdominal symptoms and they would appear to be the results of an unusually severe toxæmia. This seems the more likely when we recall that in adults there occur cases of acute rheumatism which are curiously like enteric fever in aspect.

Is there a rheumatic peritonitis? This is, I think, still disputed. An experimental rheumatic peritonitis is to me a fact, for I have seen it, and the micrococcus has been isolated from the exudation. I have also seen rheumatic peritonitis of a subacute type in fatal rheumatism in childhood, of which occurrence the following are examples.

R. W., aged 4½ years, female, had four weeks previous to coming under observation suffered from chill, multiple arthritis, and breathlessness. Her throat on admission was red, the tonsils enlarged, and also the cervical lymphatic glands. There were numerous nodules, and severe mitral disease. Pericarditis developed, and death ensued seventeen days later. The terminal stages of the illness were marked by attacks of dyspnoea, restlessness, vomiting, and intense abdominal pain. The necropsy showed carditis, mediastinitis, and inflammation of the peritoneum over the liver and spleen.

E. M., male, aged 7½ years, after getting wet through in July, 1903, developed acute rheumatism and heart disease. His mother was also subject to rheumatism. In January, 1904, he came to the hospital for severe ascites. His heart sounds were muffled, and the cardiac dullness extended up to the level of the second rib. There was no murmur, and no palpable impulse. The veins in the neck were full, and there was some dullness at the right base. There was no albuminuria. There was continuous refilling after each paracentesis abdominis,

and Dr. Penrose, under whose care the child was when in the hospital, advised a Talma-Morison operation. Much perihepatitis was found, and an opaque fluid containing leucocytes was liberated from cultures of this fluid. Dr. Paine isolated the diplococcus. I am indebted to Dr. Penrose for the ability to mention this case.

The third case was interesting because the patient, who had had a previous attack of rheumatic fever with heart disease, was admitted with arthritis and pericarditis to St. Mary's Hospital complaining of severe pain in the upper zone of the abdomen. Loud grating peritoneal friction was audible over the hepatic region. This patient recovered from the illness, but I can see no reason for doubting that this was a case of rheumatic fever with peritonitis.

Peritonitis in rheumatism would appear, then, to be rare, and where present to be usually localized to the upper abdominal zone, and to be fibrino-plastic in type; it may produce loud friction and many adhesions around the liver and spleen.

When in a case of severe rheumatism there is much abdominal pain, and infarction can be excluded, I suspect the possibility of the occurrence of some localized peritonitis.

In addition to this Dr. Burney Yeo and others have described a more acute and general peritonitis, but of these cases I have had no experience in childhood.

Joints and Fasciae.

There are some points connected with the joints, muscles, subcutaneous tissue, and fasciae to which I should next like to draw your attention.

Occasionally you will meet with cases in which there is multiple arthritis of the wrists and of the small joints of the hands and fingers, together with great muscular wasting. As a rule, there is in such cases profound anaemia, and not infrequently severe carditis and nodules. If you see a case of this kind you cannot help comparing the condition of the hands and forearms to that which you meet with in the "acute rheumatoid" attacks of young adults, and it will banish from your mind the belief that muscular wasting is in any sense a specific evidence of "rheumatoid arthritis."

Again, some nodules may have an interesting life-history; and these are the chronic ones. They come out slowly and last a long time, and merge insensibly in some cases into a chronic periosteal thickening around the joints. As a result of this slow process the joint, without either pain or even discomfort of any degree, acquires that curious ruggedness of outline which the poor sometimes call "growing out." Now the interest of this is connected with joints and fasciae hidden from view; for if such a process as this occurs under our eyes stealthily and almost painlessly, it is not impossible to believe that it may also occur in connexion with such joints as the vertebrae hidden from our eyes; further, a similar process may also occur within joints, and in the cardiac valves is possibly represented by the process of mitral or aortic stenosis.

I will give two examples of the type of case to which I am referring:

T. W., aged 7½ years, female, had suffered from pains in the limbs for some months, and throughout the year she had been wasting. When she came to me in December, 1902, she was exceedingly ill with severe carditis and was much wasted. Over the olecrana and around the elbow and knee joints were numerous firm nodules, some fixed and some movable, and the joints were rugged in outline. These nodules kept coming out at slow intervals, but with great care and a stay in hospital for six months there followed considerable general improvement. Yet how evanescent this improvement was is shown by the after-history. In April, 1903, she was discharged, and had not been home more than a week before she died.

C. H., aged 10 years, male, had an attack of chorea in 1907 and again in 1908. When I first saw him he had very large tonsils, arthritis, double mitral disease, numerous nodules, and some periosteal thickening around the knee-joints, and was very anaemic. In the hospital he suffered from acute rheumatism from May, on his admission, throughout the whole summer. Chorea, pericarditis, endocarditis, arthritis, nodules, and anaemia were the chief manifestations, and the diplococcus was isolated from the blood stream by Dr. Forbes.

In November of the same year he came to me much better, but with the nodules still present, and there was some periosteal thickening at the base of the first metacarpal bone on the right side.

In course of time the nodules disappeared, but in August, 1910, he broke down again, and being over 12 years I sent him to University College Hospital. This time he developed pleurisy, and a diplococcus was isolated from the pleural effusion. He remained in the hospital until January, and during that time nodules began to appear, both movable and fixed, and the elbows in particular became more rugged in

outline. Although he made remarkable improvement his temperature never reached normal, and neither salicylates, which were pushed, nor vaccines, nor the local use of mesotan had any effect on the progress of the nodules, which were present when the ward closed for infection.

Suppose now that a process such as this should occur in the cervical fasciae, or in the ligamentous structures of the vertebral articulations, we should then have a very puzzling condition. We should be confronted with a more or less chronic stiff neck, and possibly fixation of vertebrae—that is, a degree of poker-back. From the first we should have a great difficulty facing us, and that would be to differentiate the condition from tuberculous disease of the spine, which is not only by far the most usual explanation of a rigid spine in childhood, but also the safest one to give from the point of view of treatment. I have had some very remarkable cases under observation which support the occurrence of such chronic lesions as this, and which have considerably bothered me over the question of spinal caries.

My first case is of the ordinary type, and will serve to throw into prominence the peculiarities of the subsequent ones.

E. B., female, aged 6 years, had been ill a week with a catarrhal sore throat, stiff neck, and abdominal pain. When seen first she had multiple arthritis, a rapid heart, fever, and torticollis. Under treatment with aspirin, she made a good recovery, the stiff neck lasting about a fortnight. In a subsequent attack with sore throat there was again a stiff neck, which recovered rapidly.

N. J., female, aged 2½ years, had always been delicate. Three months before coming under observation in May, 1903, she was noticed to move her head stiffly, and complained of pain in the neck. At the same time, she also complained of pain behind the knees. There was no history of rheumatism or tuberculosis in the family.

The cervical spine was certainly stiff, but there was well-marked double mitral disease, and great enlargement of the heart. I was in great doubt about this case, which, though in many respects resembling one of rheumatism, at the same time, in its chronicity and in the degree of limitation of the movement of the spine, suggested caries, with possibly a tuberculous heart disease. I could not solve the problem further than this; the cervical symptoms soon disappeared with rest, warmth, and treatment by salicylates. I then, unfortunately, lost sight of the case.

W. T., male, aged 11 years, living in a damp house, had an attack of rheumatic fever in August, 1907. In this attack there had been a stiff neck, with multiple arthritis and heart disease. From this attack there was partial recovery, but the stiff neck persisted until I saw him in January, 1908—that is, for five months. Here, again, spinal caries seemed a most probable explanation, but I could find no real evidence of its occurrence, and there was very obvious heart disease. Lastly, under suitable treatment the stiff neck disappeared in about ten days.

E. G., female, aged 10. This patient was an example of a class of case which, common enough in adults, is unusual in childhood. This girl had, in addition to arthritis of the ankles, a subacute lumbago, with considerable pain and stiffness over the lumbar region, and in addition a stiff neck. There was no cardiac lesion. Again, under the usual treatment, she made a rapid recovery.

I may add that among my cases I have notes of some very striking examples of lumbago in young children.

My last two cases are very remarkable ones, but I will give them in brief.

J. O'N., male, aged 4 years and 8 months, had an attack of arthritis in the ankles and knees in January, 1901, with much pain in the left shoulder. There was a history of rheumatic fever on the mother's side. In May there was a relapse. Again, in July, he was in bed with multiple arthritis.

When first under observation he was much emaciated, and had severe multiple arthritis resembling in character that described in "Still's disease." Wrists, fingers, knees, and shoulders were all damaged, and his back was stiff. There was some slight enlargement of lymphatic glands in the axillae and groins. The heart was enlarged, but there was no murmur. No treatment was apparently effectual, and his parents removed him.

I felt certain he would die, but a year later a letter brought him to the hospital. He had, after four months more in bed, made a marvellous recovery, and was now running about and going to school. Some thickening and swelling of joints were detectable, and what is the point of interest here, his cervical spine was fixed, and there was now obvious mitral disease.

In December, 1903, he was walking about, but his heart gave him trouble.

In July, 1904, he had another attack of "rheumatism."

In March, 1905, I saw him for the last time. His neck was swollen and stiff, and his head bowed so that his chin almost touched his chest. All the joints formerly affected were swollen; he had advanced mitral disease and dropsy.

The boy was clearly at death's door, but his parents refused to leave him in the hospital.

Whatever the nature of this remarkable case might have been, I wish again to draw attention to the persistent cervical stiffness and morbus cordis with arthritis.

The last case merits a complete account at some future date, but I append these few facts:

A. H., male, aged 6 years, came first under the care of the surgical side of the hospital, having suffered for fourteen days from pain in the back, and limitation of extension of the cervical spine. As a result of this his head was bent somewhat forward. Four weeks later both legs, but particularly the right, became weak, and both knee-jerks were difficult to obtain. Spinal caries with commencing paraplegia was suspected, and he was put in a Phelps's box. In September, 1908, while in the box, I saw him for what appeared to me an attack of rheumatic fever with multiple arthritis and heart disease, and after repeated examinations I felt doubtful of the presence of spinal caries. A year later he had another attack of what appeared to be rheumatic fever with pericarditis.

Once more I went over the case from the point of view of spinal caries, and came to the conclusion that it had probably not occurred. At this time there had been considerable pain in the shoulders with marked atrophy of the right fingers and hand, with a less degree of the same condition in the left. There was also some wasting of the right leg. Over the upper extremities tactile sensation was diminished. Both hands were blue.

It would seem, then, possible that we have here a smouldering rheumatic inflammation of the cervical fasciae and vertebral joints with a spread of the same process to nerve roots in the neighbourhood.

The outcome of my last observations comes to this: that if we study some of the stiff necks in childhood associated with rheumatic heart disease by the light we may get from studying rheumatic processes in some obvious situation such as the elbow or the knee joints, we may discover that the simulation of spinal caries by this disease may be a more frequent occurrence than we have perhaps imagined, and we may learn something of the clinical history of spondylitis rhizomelique.

This concludes my lecture but does not exhaust my subject, for there is much that is of interest in the study of renal disease and of cerebral disease and disorders of nervous function to be learnt from the study of rheumatism in childhood.

FOUR CASES ILLUSTRATIVE OF CERTAIN POINTS IN PSYCHO-ANALYSIS.

BY

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ALTHOUGH the theoretical side of Freud's work has attracted some attention in this country, the practical possibilities resulting from an application of his principles seem to have been almost entirely neglected. Possibly this may be due to the difficulty and the time so frequently involved in carrying out the process of psycho-analysis; but it does not appear to be realized that the practical use of his principles is often a comparatively easy matter, and of so immense a value, in a large number of "borderland" cases, that nothing else holds out any real hope of relief.

The great fact which he pointed out is that many of the symptoms of hysteria (such as pain or paralysis), and still more the mental symptoms of certain allied conditions (such as the strange phobias of neurasthenia or psychasthenia), are not merely haphazard occurrences, but are produced by emotional ideas, actually and vividly at work, though in some unknown region of the mind. These ideas are, in all cases, the result of some painful impression which, like all other impressions, could for a time be readily recalled to memory, and indeed could only with difficulty be dismissed from consciousness at all. Later, however, sometimes perhaps in the natural course of events, and certainly sometimes by the agency of a determined effort to forget, the memory of the painful event has become blurred, and has finally faded beyond recall.

In certain conditions, which I need not here describe, these forgotten painful impressions remain permanently fixed in that part of the mind which is often called the sub-consciousness, though there are, perhaps, serious objections to the use of the term. Yet these hidden ideas never manifest themselves as they really are in all their nakedness to the consciousness of the unfortunate sufferer. They may, for instance, give rise to vague but intense feelings of

terror, while the patient remains quite ignorant of the causes of his fear. The "sub-consciousness," however, is perfectly aware of what it feels, but merely infects the waking consciousness with a feeling of obscure terror, keeping entirely to itself the secret object of horror.

The first case given below illustrates this characteristic rather well. The patient was a prey to terrible foreboding, but never at all suspected that the cause was a fear that he would die the same appalling death as he had witnessed in his own father.

Again, we may get hysterical pain, which appears to be often a kind of defence-neurosis, the unendurable sub-conscious mental agony being converted into the more bearable physical suffering.

The particular part of the body attacked by hysterical pain is often decided by some accidental condition in the patient at the moment of the original shock of anguish. Thus, in Cases II and III, the patients were respectively suffering from slight left facial neuralgia and from aching in the left arm at the moment when the blow was struck. Both patients developed hysterical pain, one in the left side of the face, the other in the left arm.

To cure such cases it is, as Freud shows, absolutely essential to discover the submerged idea or ideas which cause the mischief. According to him, when the ideas are discovered, and discussed, the manifestations will cease, the idea dissipate and become harmless, restoration to the memory of the original mental trauma, and the discussion of it with another person, producing what he calls "abreaction," though the actual mechanism by which this process effects a cure is still a matter of dispute, many disagreeing with the theories advanced by Freud.

In Case II this result certainly occurred; but, as I had constantly assured the patient that the pain would vanish if she could tell me everything, I cannot say how much was due to suggestion and how much to "abreaction." At any rate, in Cases I and IV the mere discovery of the original cause of the condition did little or nothing to relieve the patient's condition; but suggestion during hypnosis directed against the ideas, when they were brought to light, produced instant amelioration.

I wish to emphasize particularly the point that (except in Case III, where the cause was known at the first sitting, and where, therefore, suggestion succeeded at once) though hypnotic suggestion had been tried over and over again before the original trauma was laid bare, such suggestions proved of no real effective value whatever, being directed merely to the removal of the symptoms.

Whilst in every one of these cases hypnotic suggestion was employed, it was used with a twofold object—first, to unearth the actual emotional idea which caused the disorder; and, secondly, to remove or counteract that idea when discovered.

The first case occurred many years ago, long before psycho-analysis was recognized, and, being then in general practice, I had no opportunity of making similar experiments.

The patient was an American gentleman, aged 36. He came to me complaining of intense depression and an overwhelming dread of some terrible impending catastrophe. He had suffered in this way for many years, but the depression and terror had increased rapidly for some months before he came to me, and he had strong impulses to suicide. His own medical man had died some six months previously, and perhaps the increased severity of his distress may have been due to the fact that he had not confided his state to any one else, but had kept it entirely secret. He was, I found, readily hypnotized to a slight degree, though not capable of deep hypnosis, and for nearly three weeks I tried giving him suggestions that his dread would vanish. The treatment, however, had no effect; he became, indeed, rather worse than before. He had no idea as to what he apprehended; and I was about to give up the case in despair when I thought that he might possibly tell me the cause of his terror by means of automatic writing. I found that he had on several previous occasions tried planchette writing, so I made him place his hand on a planchette, and asked what frightened him. The planchette wrote, "Father's death." Asked why this event frightened him, he wrote, "Will die same." It appeared that when a child he had witnessed his father's death from pulmonary embolism, and had been most painfully impressed.

Having thus discovered what he subconsciously dreaded, I immediately began making suggestions under hypnosis that it was impossible that he should die in this way, that his heart was absolutely sound, and other statements of the same nature. He began to improve at once, and in less than three weeks there was no trace of his former condition.

The remarkable point is, of course, that the earlier general suggestions of improvement had no effect, but that