CONGENITAL DISLOCATION OF TIBIA.

Dr. LEWIS MARSHALL showed a girl, aged 19 months, who had a congenital dislocation of the left tibia forwards, the femur lying in the popliteal space. Dr. Marshall divided the rectus muscle subcutaneously just above the patella, taking care not to injure the synovial membrane. The result was most satisfactory, the child walking quite well, and the joint being perfectly restored.

GENU VALGUM AND OVERGROWTH OF THE INNER TIBIAL TUBEROSITY.

Mr. JOHN EWENS (Surgeon to the Bristol Hospital for Women and Children), having alluded to the silence of some eminent surgical authorities on this subject, and the slight reference as regards the distinction between this affection and other forms of genu valgum made by other writers, Mr. Ewens proceeded to call attention to the very distinctive features of the two cases by which his observations were illustrated. The inner tuberosities of the tibia were enlarged and elongated without any corresponding change in the inner condyle of the femur. The primary cause of genu valgum was, of course, a rickety condition of the bones with general loose condition of the ligaments. Why the femur only was affected in the majority of cases, the femur and tibia in a smaller number, and the tibia alone in a third and still smaller class, was a question open to discussion. Mr. Ewens had seen three of the last class of cases, of which two had been under his own care, and had been operated on by him. In each variety of case it appeared probable that the condition was due to some accidental circumstance inducing increased vascular supply to one part rather than to another. The greater frequency of the condylloid form might also be due to the normally flexed condition of the knee during sleep and when sitting, for in this position the head of the tibia was in close approximation to the posterior surface of the condyles. The common practice of letting weakly children wriggle about on the floor, or when seated on a low stool of allowing them to use their feet as propellers, was adduced as a probable determining cause of the curvature of the tibia. Notes of the two cases having been read, the writer proceeded to discuss the treatment. It was very obvious, from an inspection of the casts and photographs, and still more evident from inspection of the living subject, that no operation on the femur, either condylloid or supracondylloid, could possibly bring the hip, knee, and ankle-joints into relation with each other, and that section of the tibia alone could remedy the deformity. Then arose the question as to the nature of the operation, whether by removal of a wedge or wedges, or by simple section of a bone. The former method, in spite of some extra risks, appeared to be the most scientific and accurate. In Case No. 2 two wedges were removed, but on further consideration Mr. Ewens thought that in future operations on a small bone a simple section of the lower part of the tibia might be sufficient. In Case No. 1 the double wedge was the only method which could possibly have remedied so serious a curve, except by such a number of sections of the bone as would have been even more dangerous. The causes of the suppurative, some unavoidable, in the cases having been pointed out and regretted, the belief was expressed that further experience would quite prevent such accidents and render the operation a comparatively safe one. The treatment of such cases by mechanical methods was then referred to, but objections to it were raised on the grounds (1) of expense; (2) impossibility amongst the class of patients in which such curvatures were met with of getting proper attention bestowed on them; (3) the length of time required for the treatment by such methods. The last objection applied with full force to the treatment by plaster-of-paris casing. Neglect of these cases in the vain hope that the patient would outgrow the deformity was strongly condemned, even though a very small percentage of slight cases of curved tibia, genu valgum, etc., might, under especially favourable circumstances, improve without operation or instrumental aid. These cases, however, must always be an exception to a rule based on sound common sense principles. It was much to be regretted that early indications of curvature in bones were not attended to by suitable diet, tonic medicines, and also by splints, etc., at a period when walking was not a necessity for the child's health.

Mr. WALSHAM agreed with Mr. Ewens. He said that he was more in the habit of doing osteoclasis rather than osteotomy, as he obtained better results from the former operation.

Mr. NOBLE SMITH said that he held not that deformity of the tibia was a cause, but that it existed more often than enlargement of the internal condyle of the femur, and that he had based his views not only upon examination of patients but also upon specimens of rickety bones in museums. With regard to the comparison of treatment by operation and with instruments, he thought that the periods of time were probably not very different, since if the joints were generally weak, instrumental support after operation would be necessary for a considerable time.

Dr. BRAIDWOOD said that as a rule operation was not required till after the tenth year, and in his experience division of the femur gave the best results.

NERVOUS DISORDERS FOLLOWING SECONDARILY CERTAIN ACUTE INFECTIOUS DISEASES OF CHILDREN.

Dr. P. MURRAY BRAIDWOOD (London) in this paper considered the pathology and treatment of nervous disorders following croup (including diphtheria), influenza, measles, mumps, whooping-cough, röteln, scarlatina, and chicken-pox. He stated his belief that convulsive and epileptiform disorders following secondarily on acute infectious diseases in children were generally due to some accidental cause, such as a fright or the overpressure of school work. Paroxysms of eclampsia infantilis closely resembled in their symptoms those of epilepsy in the adult. The convulsions might be repeated three or four times, while in the intervals the comatose condition and complete loss of consciousness and sensation might continue. The persistence of the reflex sensibility in such circumstances might easily mislead, for touching the conjunctiva produced contraction of the orbicularis, and sprinkling with cold water excited reflex contractions. Dr. Braidwood, in the course of his paper, also considered the causes and treatment of chorea, Jacksonian epilepsy, unilateral spasms, and tetanus occurring in children. Massage had, he said, yielded him excellent results in cases of infantile paralysis, especially when it was combined with electricity. The paper was illustrated by a table indicating the chief nervous diseases met with in children after the various infectious diseases.

TREATMENT OF PERICARDITIS BY THE ICEBAG.¹

By D. B. LEES, M.A., M.D., F.R.C.P.,

Physician to St. Mary's Hospital and to the Hospital for Sick Children Great Ormond Street

[Dr. LEES began his paper by drawing attention to the serious consequences, in damage to the cardiac muscle and the formation of adhesions, which too often resulted from a pericarditis after apparent recovery. He pointed out that the present treatment of pericarditis was not merely practically *nil*, but that it was not seldom actually a minus quantity, for the occurrence of this complication often induced the physician to give up the use of salicylates on account of the supposed danger of their employment in this condition. After a considerable experience in the use of ice in the treatment of pneumonia, he had ventured to try it for pericarditis, and with very satisfactory results. It is clear that if the local application of ice has any influence in checking the subjacent inflammation, in so far it will tend to relieve the heart from depression, and thus act as a true cardiac tonic. Whether it does this or not can only be discovered by cautious employment of the icebag, and careful observation of the result.]

CASE I. *Acute Rheumatic Pericarditis: Pleurisy: Treatment by Salicin and the Icebag: Immediate Relief.*—A girl, E. H., aged 13, admitted into St. Mary's Hospital, January 21st, 1890, for her first attack of rheumatism. The affection of the joints was subacute, but she had pericarditis on admission. Temperature 100.5°, pulse 120, respiration 44. The house-physician applied three leeches over the heart, and gave her 20-grain doses of salicin, every hour for four doses, afterwards every four hours. I saw her on January 22nd; she was then in much distress; the pulse had risen to 140 and the respirations to 60; temperature 99.2°; I found a double rub over the heart, a systolic murmur at the apex, also tenderness and loud pleuritic crackles in the left axilla. I directed that a large

¹ Read in the Section of Medicine at the Annual Meeting of the British Medical Association held at Nottingham, July, 1892.

icebag should be applied over the heart and the base of the left lung, and that the salicin should be given every two hours. Feeling the necessity for caution, I directed that the ice should not be continued for more than twenty-four hours, and requested the house-physician to remove it earlier if he thought advisable. When I saw her next day I found that the ice had been applied during twenty-four hours, and that it appeared to have given her relief. The pulse had fallen from 140 to 104, and the respirations from 60 to 24, the temperature from 99.2° to 98.4°. The improvement was very marked, but it may in part have been due to the increased dose of salicin, for she was now manifesting some of the effects of that drug. All pain in the joints had vanished, there had been some delirium, and she complained of "noises in the head." The salicin was therefore omitted. Two days later it was noted that the friction sounds were much diminished and softer, while the cardiac dullness had not increased. Then came a relapse of the rheumatism, due no doubt to the too early discontinuance of the salicin, for it again yielded to this drug. But the friction became more marked, and slight increase of the cardiac dullness appeared. On February 8th the rub had gone but a systolic murmur remained, and the apex was two fingers' breadths outside the nipple line. There was no pain, and she felt well, but the pulse was still rapid (120). I kept her in bed for some weeks, but the rapidity of the pulse did not diminish.

In this case the application of ice for twenty-four hours over an inflamed pericardium and an inflamed pleura certainly did no harm, and appeared to give great relief, much more than had previously been obtained by leeches.

My second case was not rheumatic, but was one of a group of malignant chest cases occurring in the influenza period. Pneumonia of the right lung was soon followed by empyema, and this by pericarditis and pleurisy on the left side. The case was almost necessarily fatal; but the remarkable point is this—that under the persistent application of ice both the pericarditis and the left pleurisy subsided without effusion.

CASE II.—*Right Pneumonia and Empyema; Pericarditis; Left Pleurisy; Subsidence of Pericarditis and Pleurisy under the Icebag.*—A. L., aged 19, was admitted into St. Mary's Hospital on March 15th, 1891, with pneumonia of the upper part of the right lung, and delirium at night. An icebag was applied and was kept in place for four days. I quote two passages from the clerk's report:

March 18th. This morning the patient is quite free from delirium, and volunteered the statement that the icebags gave him great relief, and, in answer to questions, said he would much rather have them than warm applications. Pulse 140, respiration 48, temperature 103°.

March 21st. The icebag was removed yesterday at about 11 A.M., when the temperature was 101°; at 2 P.M. it was 102.8°. During the afternoon the patient became delirious, constantly trying to get out of bed, and crying out for his icebag. Pulse 132, respiration 48. The icebags were reapplied in the evening, when patient speedily became quieter. He passed a fairly good night.

On the seventh day of his illness (March 21st) the right upper lobe was nearly normal, but dullness and bronchial breathing existed at the posterior base. The temperature now stood at 100°, having fallen gradually, but the pulse still was 136 and the respirations 50. I noted specially that there was no pericarditis, and the pulse was strong. The icebags were removed. During the next ten days the temperature remained at about the same height and the dullness at the right base persisted and increased. On the 31st it was found that he had in addition a loud pericardial rub and also a loud rub in his left axillary region, the former of cardiac, the latter of respiratory rhythm. An anæsthetic was at once administered and 34 ounces of pus were removed from the right side by aspiration. An icebag was placed over the heart and a second over the lower part of the left lung. The next day 42 ounces more were removed from the right side under local anæsthesia by cocaine and ice. Three days later ether was administered and a free opening was made into the right pleura, with excision of a piece of rib, much fibrous lymph being thus evacuated, and a large drainage tube inserted. After the operation it was noted that the pericardial and left pleural rubs were still present, but that no effusion had occurred. He was taking food well, and a little brandy. The icebags were continued. Three days later it was observed that the pericardial rub was less loud, and that there was still good resonance in the third left interspace. The left pleural rub was still very loud but there was no dullness, and good inspiratory sound could be heard quite down to the base. There was free discharge from the right side. The two icebags were continued, and a few days later it was found that the pericardial rub and the left pleural rub had both entirely disappeared without any evidence of effusion. It cannot be doubted that if such effusion had occurred into either serous cavity, death would have quickly followed. The ice was removed, and I began now to have some hopes of his recovery; but the drain from the right side was too much for his strength. In spite of all that we could do in the way of nourishment, including an increased quantity of brandy, he grew thinner every day, at last developed thrush on the fauces, and finally died. We could not obtain permission for a necropsy.

It is certainly remarkable that in a case in which the right pleura was full of inflammatory products, a rasping friction in the left pleura and a similar condition in the pericardium should, after lasting for several days, disappear without the slightest evidence of effusion into either of these serous cavities. I believe that it was due to the ice.

My third case was less severe and more fortunate.

CASE III.—A. W., aged 17, was admitted into St. Mary's Hospital on June 16th, 1891, for her second attack of rheumatism. On admission she was found to have mitral stenosis, but no evidence of pericarditis. Three days later (June 19th) there was a pericardial rub in the third left space, double, loud, rasping; the systolic part being the louder, and heard down to the nipple level. An icebag was applied. Next day (20th) she was brighter and looked better; the rub was less loud and not heard so

far down; the cardiac dullness reached the third rib, with slight impairment in the second space. On the 22nd she was quite lively, and the rub was barely audible; in the evening the ice was removed, after having been retained over the heart for three days and a-half. Two days after the removal of the ice, pain returned over the sternum. No rub could be heard, but there was now absolute dullness in the left second space near the sternum, dullness over the second rib, a good tone in the first space. No ice being obtainable at the time, a Leiter's coil with cold water was substituted. The dullness in the second space vanished in a day or two, and on July 1st she felt well.

The four remaining cases were all in children, and were under my care at the Hospital for Sick Children, Great Ormond Street. The fourth case is interesting as showing the action of the icebag in arresting pericarditis without any assistance by salicylates, and also in demonstrating the influence of salicylates in repressing rheumatic pleurisy.

CASE IV.—M. B., aged 7, was admitted, September 22nd, 1891, suffering from rheumatism, mitral regurgitation, and pericarditis. She had previously been an in-patient for rheumatism, chorea, and endocarditis. On admission she had many erythematous patches of various sizes on her skin, one of which was distinctly urticarial. She had to be propped up in the sitting position in bed, and the nostrils were working. The heart extended from a finger's breadth to the right of the sternum as far as two fingers' breadths outside the left nipple line. A systolic murmur was heard at the apex. There was dullness in the lower part of the second left space, but resonance in the upper. A double rub was heard over the right ventricle, especially towards the base. The house-physician (*pro tem.*) applied two leeches on the 24th, but did not order salicylates, on account of the pericarditis. On the 25th he thought the child a little easier, but the rub was about the same. An icebag was applied at 12 noon; she did not dislike it, and preferred it to hot applications. On the 27th she was better, seemed easy, and lay lower in the bed; the pulse-rate had fallen from 140 to 120. The rub was much less loud, but was heard over a somewhat larger area, being now heard to the right of the sternum as well as over it; also the cardiac dullness had increased a little, and now reached the second rib. The ice was removed at 8.30 P.M. on the 28th, after three days and a-third, when she began to dislike it. On the 29th there was only a faint double rub to be heard in the second right space, none elsewhere; and on October 2nd the rub had vanished, and the cardiac dullness was now normal at the base, and only extended one finger's breadth beyond the left nipple line. The pericarditis was thus at an end, but the child was not well. There was still some pyrexia, and it was found that she had pleuritic friction and dullness at both posterior bases. Finding, to my surprise, that she had had no salicylates, I at once ordered for her 8-grain doses of salicylate of soda every three hours. This produced immediate improvement, and a few days later the pleurisy was ended. Nothing but her mitral regurgitation remained.

In the fifth case we had the opportunity of attacking a pericarditis at its very commencement, and the result was as good as could possibly be wished.

CASE V.—M. H., aged 7, was admitted on October 9th, 1891, for her first attack of rheumatism, with tender swollen knees, a temperature of 102°, and a systolic apex murmur; the cardiac dullness reaching from the right margin of the sternum to one finger's breadth inside the left nipple line; sounds at the base normal. Six grains of salicylate of soda every three hours were ordered for her. On October 11th at 10 A.M. she began to complain of pain over the upper part of the sternum, and at 12 noon the house-physician found a soft rub over the sternum at the level of the third rib. He at once applied an icebag over the heart and diminished the dose of salicylate from 6 grains to 3. An hour after the application of the ice the child was free from pain. She liked the bag. At 10 P.M. he found that the temperature had fallen from 101° to 99°, and that the child felt better, was free from dyspnoea, and lying on her side, although on examination the rub was much louder, and was now heard all over the heart. The icebag was kept in position for sixty-two hours continuously. On the 13th, after it had been applied for two days, I noted that the child looked easy. Pulse 120, respiration 32, temperature 98.6°. There was some increase of the precordial dullness; it now extended from one finger's breadth outside the right edge of the sternum to only half a finger's breadth inside the left nipple line; above, not higher than the third cartilage; a systolic rub, with a sort of cantering rhythm, could be heard over the right ventricle, and even as far as the second cartilage. There was also a blowing systolic murmur at the apex, not conducted far. On the 14th the icebag was removed, the temperature having fallen to 97°, but, after ten hours, when it had again reached normal, the bag was reapplied. Similarly, on the 15th, it was omitted for a few hours. On the 16th the child felt much better, quite easy, and free from pain. The rub was barely audible, only at one spot, and there very faintly. The right limit of cardiac dullness had now returned to the normal. The treatment was still continued with intervals. On the 20th no rub at all could be heard, the dullness was normal, and I thought the apex murmur less loud. On the 23rd the ice was finally removed, twelve days after its first application. From noon on the 11th to 10 A.M. on the 23rd there were 288 hours, during 100 of which the bag was removed, so that it was over the heart during the twelve days for 188 hours in all, commencing with a continuous application of 82 hours. The child was now practically well, but I kept her in bed for another month, in order to give the heart a long rest. On November 24th I noted that the cardiac dullness was quite normal, that the apex was in the normal position, that a systolic murmur could be heard there, barely conducted beyond the nipple line and inaudible behind, that a good second sound could be heard at the apex, that the pulmonary second sound was not accentuated, and that no murmur could be heard at the base. Eventure to claim this result as extremely satisfactory.

CASE VI.—In this case, that of G. M., aged 12, admitted October 20th, 1891, a pericardial rub vanished in two days, and a pleuritic rub at the base of each lung in about a week, under the application of icebags. He was, however, strongly under the influence of salicylates, taking 9 grains every four hours, and exhibited symptoms of their toxic action, first a

peculiar erythematous rash something like German measles, then deafness and tinnitus, and lastly slight irregularity of the pulse. This last symptom was first observed on the 26th, just after the salicylate had been stopped, and two days after the icebag had been removed from his heart. It is a symptom which I have once previously observed as a result of salicylates.

The seventh case is of special interest, because in it we witnessed the rapid absorption of a pericardial effusion under the local influence of ice.

CASE VII.—A. B., aged 9, was admitted on November 26th, 1891, having been ill about ten days with feverishness and pain in the chest. She had had rheumatism a year before, and chorea six months before. I saw her at 10 A.M. on the 27th, and found that she had, in addition to a double rub in the third left space and over the fourth rib, evidence of considerable effusion into the pericardium. For the precordial dullness extended to one and a-half finger's breadth to the right of the right edge of the sternum, and three finger's breadths outside the left nipple line, and upwards the second left space was dull, and even the first left space much impaired in resonance. There was also a blowing systolic murmur at the apex outside the nipple line. On account of the effusion the house-physician had refrained from giving salicylates, and had ordered for her 10 grains of citrate and 10 grains of bicarbonate of potash with 3 minims of tincture of nuxvomica every six hours. I had an icebag applied over the precordial region, but feeling strongly the necessity for caution I asked the house-physician to watch the case carefully, and I paid a special visit to the hospital in the evening in order to see her. At 8 P.M. I found that the child was comfortable, and that there was already a distinct diminution in the extent of the cardiac dullness to the right of the sternum. Twenty-two hours later, at 6 P.M. on the 28th, there was still further diminution, for now it did not pass the right edge of the sternum. The double rub was much less loud, but it was heard over rather a larger area. The ice had been applied for periods of two or three hours at a time, with intervals; during the 29th it was used for two four-hour periods. On the 30th I found that the dullness did not extend beyond the mid-sternum, and that the resonance of the left lung now crossed a line from the nipple to the sterno-clavicular articulation. Thus after only three days' treatment with ice the effusion had practically vanished. The rub could still be heard. The icebag was applied for four hours, and for a like time on December 1st and 2nd. After this it was given up. On the 4th there was good resonance in the second left space and some tone even in the third. Cardiac dullness to the right reached the mid-sternum, to the left two finger's breadths outside the nipple line. The rub had quite vanished. At the apex there was a long systolic murmur and no second sound. A little friction sound was heard on the 5th and on the 7th, but not again. On January 1st I noted that the cardiac dullness extended barely two finger's breadths to the left of the nipple line, and not quite up to the mid-sternum; above to the third space. The impulse was in the nipple line in the fifth space; at and just outside the impulse there was a blowing systolic and a short blowing postsystolic murmur. The systolic murmur could be heard very distinctly at the angle of the scapula. It was clear that the child had mitral regurgitation and probably early stenosis, but the result as regards the pericardium must be pronounced very satisfactory.

It so happens that during the last six months I have not had the opportunity of treating any other cases. But what I have narrated is sufficient, I think, to prove that the icebag, when used with reasonable caution, is a safe application in pericarditis, that it is usually liked by the patient, that it tends to check the violence of the local inflammation and to hinder effusion, and that it may even help to cause absorption of effusion which is already present. It acts *cito, tuto, et jucunde*. In view of the extreme importance of preventing, if possible, damage to the structure of the heart, I believe that the introduction of the icebag into the treatment of pericarditis will be found a great advance in therapeutics.

ABSTRACT OF A PAPER ON PERIPLEURITIS.¹

By P. BLAICKIE SMITH, M.D.,

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THE term peripleuritis is applied to an affection whose chief feature is suppurative cellulitis of the thoracic wall. It is not necessarily confined to the neighbourhood of the pleura, but it may extend downwards and involve the connective tissue of the loins and abdomen. The disease was first described by Wunderlich in 1861, and to him and to his countrymen we are indebted for almost all the information we possess on the subject. English writers, with the exception of Wilson Fox, are practically silent concerning it, and to this circumstance, as well as to the undoubted rarity of the complaint, is to be ascribed the slight attention which it has received in this country.

With reference to the etiology of the disease, it would appear from an examination of the cases published abroad that a close relationship exists between peripleuritis and pleurisy. Sometimes the former is the primary affection, producing as

secondary results either pleurisy or pleuropneumonia, while in other instances the inflammation of the cellular tissue is the consequence of the disease in the pleural membrane. Occasionally it may arise from mechanical injury to the thorax, as in the case presently to be narrated, or it may be the solitary suppurative sign of pyæmia.

Clinical History.—The complaint is one of great rarity. It is commonest in the male sex. When uncomplicated, it generally begins suddenly with a rigor, accompanied, or soon followed, by catching pain in the chest and inability to lie on the affected side. At this stage it is indistinguishable from pleurisy, and the resemblance is still further strengthened by the presence, in some cases, of slight dry cough. Accompanying these symptoms are the usual disturbances attendant on pyrexia. The temperature is only moderately elevated. Physical examination gives negative results so far as intrathoracic signs are concerned, but it will be observed that percussion is productive of great pain, especially in certain areas. Occasionally much suffering is complained of on moving the arm of the affected side, a circumstance doubtless due to the contraction of the pectoral muscles in the midst of the inflamed tissue. Within a few days signs of local inflammation make their appearance, notably in the areas previously tender on percussion; the inflammatory signs rapidly progress, and obscure fluctuation is discoverable in one or several situations. It is at this period that the disease most closely resembles pleuritic effusion. The percussion note is dull, vocal resonance and vocal fremitus are impaired, breath sounds are feeble or absent, the chest wall is swelled and cedematous, the circumference of the affected side is increased, and the intercostal spaces appear unduly separated. But when the abscesses are discharging the resemblance to pleurisy quickly subsides. The normal percussion note returns, the bulging of the side disappears, the intercostal spaces resume their ordinary relationship, vesicular breathing is once more heard, vocal resonance and fremitus are again restored, and all the subjective symptoms of the complaint rapidly diminish.

The following case is a good example of uncomplicated peripleuritis, the result of muscular overstrain:

Early in June, 1889, a sailor, aged 45, was sent to the Aberdeen Royal Infirmary, supposed to be suffering from pleurisy. His previous history was of no importance, but the account which he gave of his recent illness was highly significant. Towards the end of May he was at sea, and on one occasion, when he was steering the ship in very rough weather, a big sea coming unexpectedly almost tore the wheel from his grasp. During his efforts to retain control he suddenly experienced in his right chest pain of such severity as to prevent him using his arm. He was compelled to abandon his post and go below, and very soon afterwards he was seized with a rigor. Poultices were applied to the chest, but the skin was so sensitive that they had quickly to be discontinued. On arriving at port he was sent under my care. When I first saw him (on June 6th) he complained mainly of catching pain in his right side and right loin. He breathed 24 times a minute, and, through the respirations were shallow he did not suffer from breathlessness. He had a slight dry cough, which, aggravated the pain; he could lie comfortably only on the left side, and he could scarcely turn himself in bed, chiefly owing to the pain in his loin. Upon examination the lower two-thirds of the right thoracic wall—anteriorly, laterally, and posteriorly—and the right loin were uniformly swelled, and in several places the skin was reddened. The chest wall was extremely hyperæsthetic. Both sides moved equally well on respiration, and the intercostal spaces, though somewhat prominent, were not unduly separated. On percussion the swelled areas gave a dull note; auscultation discovered faint vesicular breathing, unattended by adventitious sounds; vocal resonance and vocal fremitus were greatly diminished. Percussion produced much pain. The circumference of the right chest at the level of the nipple was 2 inches greater than that of the opposite side. The axillary glands were enlarged, painful, and tender, and the arm could not be moved owing to the pain in the thoracic wall. The heart presented nothing abnormal. The pulse was 90. The appetite was poor, and thirst was urgently complained of. The skin was covered with perspiration. The thermometer registered 101° F. Sleep was much disturbed, chiefly by pain in the side, and occasionally delirium was observed at night. The urine was of the usual febrile type.

During the next two days the swelling decreased in superficial extent, and gradually became concentrated in three regions: in the flank, near the nipple, and posteriorly from the angle of the scapula as far as the twelfth rib. The skin in these situations was much reddened and exquisitely tender, and palpation detected obscure fluctuation. Over the base of the lung, anteriorly and laterally (where the swelling had especially diminished) percussion and auscultation gave more satisfactory results than before. Next day there was no longer any doubt as to the presence of pus, and, accordingly, the three abscesses were freely incised. With the discharge of matter the symptoms rapidly improved. The swelling and oedema of the side subsided, the thoracic pain disappeared, and the physical signs became normal in every particular. Soon afterwards the patient was discharged.

It is worthy of note that the abscesses were not in any way influenced by the respiratory movements, and that they were quite independent of each other. Their situation was clearly

¹ Read before the Section of Medicine at the meeting of the British Medical Association at Nottingham, July, 1892.