

SUPPURATIVE CONDITIONS IN THE JOINT REGIONS IN INFANTS AND YOUNG CHILDREN *

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Inflammations in and about the joints in children are interesting for several reasons. The anatomic diagnosis is very often puzzling. The point of invasion of the infecting germ is frequently impossible to discover; and, finally, the results of early treatment are surprisingly satisfactory, except in cases of general sepsis. In looking over the records of a large number of cases of inflammations in the region of the joints in patients under five years old, it is found that the cases fall naturally into certain groups to which it may be profitable to call attention. My topic does not include tuberculous arthritis, but it is important to keep in mind all the while the picture of tuberculous joint disease in order to mark the contrast to the conditions that will be mentioned. This is all the more necessary because the great body of physicians are prone to consider joint disease either as tuberculous, if chronic, or as rheumatic, if acute.

Rheumatism is so rare under two years that this diagnosis should be made in a young child only by exclusion of all other possible conditions. True, rheumatism does occur, both multiple and monarticular. When monarticular, and especially if involving the knee or hip, it makes one very anxious lest the condition be tuberculous. In fact, it is frequently mistaken for tuberculous joint disease. Inasmuch as rheumatism is so rarely a suppurative disease, I shall omit it from my discussion.

As those who see the conditions in their early stages, the members of this Section can do a great service in calling attention to other forms of joint involvement besides tuberculosis and rheumatism. With the acute suppurative conditions delay in treatment or treatment by fixation and rest, with or without traction, is apt to result disastrously.

SUSCEPTIBILITY TO JOINT INFECTIONS

The joints in infants and young children are very susceptible to all sorts of infections. The younger the child the more apt it is to have joint infection, and, moreover, the number of joints apt to be involved seems to be greater the younger the child. This susceptibility is undoubtedly due to the rapid growth taking place at the joint ends of the bones.

Any large joint may be involved but there is a proneness for the additional infection of the small joints of the wrist, hand and foot and sternoclavicular articulation.

Shortly after birth the infections most frequently met are those due to sepsis, and somewhat later, though still during the first few months, those due to the gonococcus. Both these infections are apt to be multiple. Between the first and fifth year the child may suffer from various types of infection of several or single joints. The infective agent may be the streptococcus, the staphylococcus, the pneumococcus, the typhoid bacillus, the influenza bacillus, and occasionally (with the hip joint) the colon bacillus. Children over five years old are much less apt to have suppurative conditions in the regions of the joints, and when they do occur the point of invasion can usually be determined. Joint disease in children over five is usually either tuberculous or rheumatic.

TYPES OF INFECTION

The groups of cases which it seems important to emphasize are the following:

- I. Arthritis due to the streptococcus, or to the staphylococcus or to mixed infection by these germs.
- II. Arthritis due to the gonococcus.
- III. Arthritis due to the pneumococcus.
- IV. Arthritis due to the bacillus of influenza.
- V. Cases of osteomyelitis, including periostitis and epiphysitis.
- VI. Cases of deep cellulitis.
- VII. Cases of perinephritic abscess, psoas abscess and ischiofemoral abscess.

I shall relate very briefly a few typical cases of some of the groups.

GROUP I.—ARTHRITIS DUE TO STREPTOCOCCUS OR STAPHYLOCOCCUS OR BOTH

CASE 1.—*Purulent Arthritis of Shoulder Due to Streptococcus.*—T. R., 1½ years old, in Babies' Hospital from May 1 to May 20, 1903, had been a healthy baby; was nursed three days, then fed on condensed milk, rice water and soup; had chickenpox at 1 year. He had never walked; had no digestive disturbance; had purulent conjunctivitis at 9 months, lasting five weeks. He entered hospital with history of having had for three weeks a "sore shoulder." It was slightly swollen at first, growing steadily worse. The child was feverish at times. Physical examination showed the fontanel 1 inch in diameter and depressed. The child looked stupid. Heart and lungs were normal; abdomen flaccid; liver and spleen not enlarged; all superficial lymph nodes enlarged. The right shoulder joint was swollen and fluctuating but not red, though somewhat warm. Temperature was from 102 to 103. Aspiration drew thick, yellow pus, containing the streptococcus. Operation was done on May 4 under chloroform, incision being made into the joint. On the next day temperature was 102 F. at noon and the child was very restless. Being exposed to diphtheria he was given 500 units of antitoxin. On May 6 the temperature was under 100 and the wound was looking well. The child's weight on admission was 16 pounds, and on May 11, eight days later, was 17 pounds 4 ounces. On May 20 the weight was 17 pounds 8 ounces and the wound had entirely healed, joint motion being good.

CASE 2.—*Multiple Septic Arthritis Due to Streptococcus, Bronchopneumonia, Acute Pleurisy.*—A. S., 20 months old, was in Babies' Hospital from Oct. 25 to Oct. 29, 1904. The baby was taken acutely ill with fever, but without vomiting or diarrhea, three days before admission to the hospital. She became very fretful, crying out when touched; had also slight cough. Examination showed numerous dry friction rubs but no change in the breathing sounds. Behind were heard fine crackling râles. There was some dullness on right base. Respirations were 80 to the minute. The spleen was two fingers' breadth below, liver one finger's breadth below ribs. There were some enlargements of the joints of both extremities. The left wrist was swollen and hot, the left ankle and foot also. There was a fluctuating swelling, painful, hot and discolored on the inner side of the right arm at about its middle. The temperature was 103 to 105.8 F.; pulse, 160; respirations, 60 to 80; leucocytes, 9,000. The swelling of the left wrist and the left dorsum of the foot persisted and the right shoulder also became red and swollen. On October 28 the leucocytes were only 7,000. On October 29 the temperature was lower and the baby died at 10 p. m. Examination for gonococci was negative. Aspiration of shoulder joint showed streptococcus pus. Autopsy showed the lesions mentioned above and also an acute nephritis.

CASE 3.—*Mixed Staphylococcus and Streptococcus Arthritis of Knee.*—J. H., male, aged 20 months, was in the Babies' Hospital from Jan. 14 to Feb. 28, 1907. Four days previous to admission the child stopped walking and cried with pain in the feet. There was high fever and swelling in both legs below the knee. For two days the swelling was mostly in the left leg around the knee; great pain on motion. On admission the

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whole region of the left knee was red and swollen. Ice bags were applied. Temperature was 104. At operation on February 2 the knee joint was incised and 4 ounces of pus obtained. It showed staphylococci and streptococci. By February 28 the wounds were nearly well and motion of joint was good.

CASE 4.—*Streptococcus Arthritis of Shoulder and Hip*.—J. S., male, 7 months old, was admitted to the Babies' Hospital Nov. 27, 1908. Three weeks before admission the child had abscess on the right side of the neck. There was some general rigidity after that time and six days before admission the child was said to have had a convulsion. At this time it was noticed that the left thigh was larger than the right and there was some pain on motion. On admission the left shoulder joint was found to be swollen and tender and the shoulder was not moved. The left hip was likewise larger than the right and the thigh held flexed by spasm. No definite point of fluctuation was made out. The following day Dr. Hartley aspirated the left hip joint, obtaining turbid yellow fluid which showed staphylococci and later streptococci. Three days later a retropharyngeal abscess containing streptococci was opened. One week after admission 37,500,000 dead streptococci were given by hypodermic injection. The temperature ranged from 99 to 102 and the joints remained swollen. Two weeks later thin pus was drawn from the left gluteal region and showed streptococci. The following day an incision was made into the left gluteal region and a small quantity of light yellow fluid obtained. The joint was not incised. No operative treatment was attempted for the shoulder, but both joints healed completely.

GROUP II.—GONOCOCCUS ARTHRITIS

During the past five years I have seen two cases of gonococcus arthritis at the Vanderbilt Clinic, both being monarticular, and there have been nine cases at the Babies' Hospital, most of which I have seen. Seven of these Babies' Hospital cases occurred in the gonococcus epidemic at the hospital in 1903 and 1904, and were reported in detail by Dr. Kimball. The remaining two cases occurred in 1907, and there was not a single case in the intervening years.

A peculiar feature of these cases is that they occur almost exclusively in male infants without any urethritis or other discoverable entrance port. One of my cases at the Vanderbilt Clinic followed gonococcus ophthalmia. The baby was three weeks old and had had ophthalmia from birth. The right knee became swollen and tender on the tenth day. By the use of alcohol dressing the inflammation was allayed and the synovitis subsided.

Another feature is that there are usually several joints involved and that the tissues around the joint as well as the joint itself are implicated. Often the para-articular swelling is the greater and on cutting through these tissues there is a large amount of serum and pus obtained, while there may be little obtained from the joints. There is fever for two or three days before the joint swelling appears, ranging from 101 to 103.

A final characteristic is that the inflammation, even though purulent, yields readily to treatment; usually to such simple measures as 60 per cent. alcohol compresses or aluminum acetate and alcohol, equal parts. If these measures are not successful, simple incision into the joint is all that is needed. The joints heal quickly with no impairment of the function.

Of course, some of the cases prove fatal.

The histories of two cases will be given briefly:

CASE 5.—*Multiple Gonococcus Arthritis*.—C. J., male, aged 2½ months, was in the Babies' Hospital from Jan. 25, 1907, to Feb. 18, 1907; died of bronchopneumonia. He was brought to the hospital on account of vomiting and cough. Twelve days after admission, i. e., on February 8, had temperature for two days up to 101 to 102.6. Then there appeared on the dorsum of the left foot above first metatarsophalangeal joint a tense

swelling, with shiny skin. On the third day the temperature was 102 to 102.4, and the abscess was opened, ½ ounce of pus being evacuated from the joint. The next day temperature was 101 to 102.6 and the right ankle was swollen and tender but not fluctuating; the swelling seemed rather diffuse. By noon the second joint of the left forefinger was swollen and tense. Ice poultices were used. White blood cells were 13,100; temperature, 99 to 103.2. On the fifth day the metatarsal joint had closed. There was no fluctuating in the other three joints. The next day the ankle joint was much improved. On the eighth day the toe joint was again swollen and fluctuating so it was opened again, a small amount of thick yellow pus being obtained. This pus showed typical Gram-negative intracellular diplococci. Culture showed the same organisms. On the eleventh day the right sternoclavicular joint was swollen and the temperature went up to 104.8. The next day the baby developed a strip of bronchopneumonia and had a temperature up to 105, dying the following day.

CASE 6.—*Multiple Gonococcus Arthritis*.—E. v. E., 3 months old, male, was in Babies' Hospital from January 24 to March 16, 1907; admitted to hospital because he did not gain in weight and was vomiting. On February 11, just sixteen days after admission and two days after the case just mentioned developed, there appeared diffuse non-fluctuating swellings at the left ankle and at last joint of the right middle finger. The temperature had been elevated for two days from 100 to 103. White blood cells were 13,100. For the next four days no new joints were involved, but the temperature ranged between 99.8 and 102.6. On the fifth day the left elbow and wrist were swollen—a diffuse swelling seeming like a cellulitis or para-articular inflammation. On the seventh day aspiration but no pus. By the sixteenth day the temperature was about normal, and the joints remained swollen and tender. Sixty per cent. alcohol dressings were applied. On the twenty-fourth day diplococci were demonstrated in the thick green pus obtained from elbow and ankle; they were proved to be gonococci both by microscope and by culture. The patient was discharged with the joints still somewhat swollen, but not very tender.

GROUP III.—ARTHRITIS DUE TO PNEUMOCOCCUS

CASE 7.—*Arthritis of Shoulder (Probably Pneumococcus)*.—H. F., male, 9 months old, was in the Babies' Hospital from March 14 to April 4, 1905; discharged cured. He had pneumonia in both lungs when 6 weeks old; was very sick for twelve days. For three months there was swelling of the shoulder joint. Just as the child was recovering from pneumonia the mother noticed that the shoulder was swollen, hot and red; it had been so ever since. There was irregular fever. The left shoulder joint was found to be swollen. The child did not move the arm, and, moreover, it could not be moved freely. There was slight fluctuation. The temperature ranged from 99 to 102.2. Aspiration of joint was made on March 21 and pus obtained, and the next day an incision was made into the joint and a large amount of pus was evacuated, most of which seemed to come from around the joint. By March 25 the temperature was normal and the leucocytes were 12,000. On April 4 the shoulder was healed.

CASE 8.—*Purulent Pneumococcus Arthritis of the Left Knee, Bronchopneumonia, Meningitis*.—A. McL., female, 8 months old, was in the Babies' Hospital from Nov. 21 to Dec. 10, 1903; discharged dead. The patient was apparently well until seven weeks before entering the hospital, when she had a typical bronchopneumonia on both sides. Recovery was satisfactory. A swelling of the left leg was present. When incised 2 ounces of pus which showed pneumococci was obtained. Following this there was considerable constipation. One week before entrance to the hospital there was vomiting of cerebral type. It was for meningeal symptoms that baby was admitted. The meningitis proved to be due to the pneumococcus as shown by examination of the cloudy fluid obtained by lumbar puncture. On admission the right knee was found enlarged and held flexed. The patella floated. Kernig's sign was absent on the right side; could not be tested for on the left because of rigidity of the knee. The symptoms while in hospital were those of acute meningitis.

GROUP IV.—ARTHRITIS DUE TO THE INFLUENZA BACILLUS

CASE 9.—*Multiple Arthritis and Meningitis Due to Bacillus of Influenza*.—In the spring of 1907, in consultation with Dr. F. S. Fielder, I saw a 12-months old patient who had had cough, fever and prostration with comparatively high temperature and, in addition, swelling of the metacarpophalangeal joints of the right hand. Later the left wrist became swollen, and the right hip and one of the vertebral joints. The child was sick for twelve days and died with no definite symptoms of meningitis. We had agreed on the diagnosis of grip, but no lumbar puncture had been made and no withdrawal of joint fluid. But a very careful necropsy was made by Dr. Welch of the Cornell Laboratory, and from all these joints, five in number, was obtained a pure culture of the influenza bacillus, absolutely no other organism being present. At the necropsy examination of the brain was made, and from the sulci was obtained pus of similar character to that found in the joints. Moreover, the germs found by careful culture were also only those of influenza. This baby had had simply signs of great prostration; no signs of meningitis at all. It may be that the baby had meningitis from the beginning, but it was a most striking case of influenza bacillus septicemia with terminal meningitis.

GROUP V.—OSTEOMYELITIS, INCLUDING PERIOSTITIS AND EPIPHYSITIS

CASE 10.—*Osteomyelitis of the Femur*.—M. A., 14 months old, was seen at Vanderbilt Clinic, Oct. 2, 1905; on October 2 was referred to Roosevelt Hospital. There was a history of some inflammation about the vulva six months previous, but there had been no vaginal discharge. For the previous week the left thigh had been swollen and recently had been increasing very rapidly in size. It was painful to the touch and was not used. There was no pain in the other leg nor in any other joints. The swelling of the left thigh was pear-shaped and involved the upper four-fifths. There was no fluctuation, but the thigh was very tender. There was general glandular enlargement. Temperature was 102.4. Operation evacuated pus which came from about the upper part of femur, not from joint.

CASE 11.—*Probable Periostitis*.—B. B., aged 13 months, was in the Babies' Hospital from Nov. 18 to Dec. 18, 1907; had periostitis of the thigh following a perirectal and serotal abscess. Three weeks before entrance the left thigh became swollen near hip joint; swelling increased toward the knee. There was marked pain on motion and child did not move the thigh. The swelling of the left thigh was very hard and not movable; seemed connected with the bone. The skin was tense but not red or shiny. Passive motion of the thigh at hip joint was possible. Temperature varied from 100.2 to 100.6. Ichthyol ointment was used on the thigh. After a few days temperature became normal and the swelling of the thigh subsided. When the child was discharged one month from the time of admission the thigh was much smaller and the baby's condition was greatly improved. In this case it is not positive that the inflammation was suppurative. It is probable that it was a periostitis.

CASE 12.—*Probable Osteomyelitis of Epiphysis*.—J. F., male, aged 16 months, was in the Babies' Hospital from Aug. 13 to Aug. 20, 1906. Eight days after admission there was swelling on the lower part of the left leg. This swelling increased and prevented walking. Latterly there was redness and heat. The swelling was found to be over the lower end of the left fibula, most marked about the malleolus; but the redness extended below the ankle and to the back of the leg. There was fluctuation. The child would not bear his weight on the foot but passive motion at the ankle was possible. Two days after admission 1½ ounces of pus were evacuated through an incision made at the lower part of swelling. The connection with the bone was not made out. The child was discharged with the wound almost healed.

CASE 13.—*Osteomyelitis of Epiphysis*.—E. W., male, 17 months old, was in the Babies' Hospital from March 23 to April 4, 1907. At noon on the day preceding admission the child seemed feverish, complained of pain in the right leg and

refused to walk. The right knee was swollen on the morning of admission and the child kept the knee flexible. On examination the right knee and the tissues below it were found much swollen, measuring nearly two inches more than the opposite leg. The skin was shiny and there was some redness. Temperature was 103.4. Next day white blood cells were found to be 28,400, and of these 80 per cent. were polynuclear. Notwithstanding ice poultices and hot poultices, the swelling increased and became more tense. Two days later thick, green pus was evacuated through incision on right knee. The pus did not come from the joint but from below the joint. At the time it was not made out whether the bone was affected, but four days later denuded bone could be felt deep in the wound, showing that the point of infection had been the shaft of the tibia.

GROUP VI.—CELLULITIS

CASE 14.—*Pneumococcus Abscess in Region of Knee*.—J. L., male, 7 months old, was admitted to the Babies' Hospital March 29, 1909. When 6 months old he began to have swelling about the right hip gradually extending toward the knee. He had always been well up to that time. About March 1 he was vaccinated and after that there was fever and the thigh became worse. Seven days before admission to the hospital the family physician aspirated fluid and then operated on the right thigh above the knee. On admission the patella was apparently floating, the knee swollen and held flexed. Pus was discharging from old wound above the knee. On the following day two openings were made into the abscess, one above and one below and to the inner side of the patella. The bone was not involved and the abscess seemed entirely superficial. Smear and blood from the wound showed pneumococci. Seven days after the first operation by Dr. Alfred S. Taylor the wound was reopened and an incision made into the external surface of the joint. A week later it was thought necessary to open the joint again, but an incision above the joint on the anterior aspect of the thigh obtained a large amount of pus. Culture from this showed pure staphylococci and no opening was found into the joint. The temperature after the operation ranged from 98 to 104, and so 50,000,000 dead streptococci were injected into the left arm on April 1. This was repeated on April 6, and on April 10 10 c.c. of Hiss's leucocyte extract was injected. On May 3 the left thigh was badly swollen and about 4 ounces of thick yellow pus were aspirated; 20 c.c. of normal horse serum were injected into the cavity. The culture from this pus showed short streptococci. From the time of the last operation the child improved very satisfactorily.

CASE 15.—*Streptococcus Abscess Around Left Hip Secondary to Infected Nevus on Face*.—E. H., female, 4 months old. When 3½ months old a small vein at the back of a nevus on the right cheek burst and there was a slight bloody discharge. After three days there were some small vesicles in this area which later discharged some pus. Next, the lymph nodes under the right jaw became swollen. The swelling was quite diffuse but subsided after a few days. At the same time it was noticed that the left leg was not moved but was kept flexed at the knee and the hip. The temperature ranged from 100.6 to 102 up to the day of my visit, when it ranged from 102 to 103.5. There was limitation of motion by muscular spasm and some enlargement of the left hip but no sure swelling of the joint. The baby was kept under observation, the thigh being immobilized in an aluminum acetate dressing. After two weeks the baby was operated on by Dr. William G. Erving of Washington, D. C. Aspiration of the abscess in the region of the left hip had shown a pure culture of streptococcus. The abscess when opened was found to be of considerable extent and had dissected out the trochanter and neck of the left femur, although the capsule of the joint seemed to be intact on exploration at that time. The abscess drained freely but did not heal until two months later. Meanwhile the baby's general condition gradually improved. The convalescence was uneventful save for suppuration of an infected lymph node below the right ear, which was the probable site of the original infection. One week after the healing of the wound in the thigh an x-ray examination showed apparent damage to the upper border of the acetabulum with slipping of the head upward out of the socket. Otherwise no bony damage was made out. From

that time until the present, traction has been continued on the leg and passive movements are still carried on, so that while the capsule is still probably distended there is no measurable shortening. There is full rotation, full adduction, normal extension and 60 degrees of abduction; so that there is every reason to believe that the joint will be a good one. The baby's general condition is excellent. This report was received from Dr. Erving on May 29.

CASE 16.—Deep Streptococcus Cellulitis Extending to the Bone.—S. R., female, 14 months old, was in the Babies' Hospital January 15 to March 12, 1906; developed diphtheria and was discharged unimproved. She came into the hospital for pneumonia. Discharge from the nostrils showed influenza bacillus. Ten days after admission the patient developed swelling and redness of the right metatarsus. Temperature went up to 103 F. Three weeks after admission the patient developed swelling near the left knee joint, especially to the outer side of the patella. The patella did not float. Aspiration showed thick pus, pure streptococcus. On the following day this pus was evacuated by an incision to outer side of patella; the knee joint was not involved. Two weeks later there was swelling of the right shoulder in front, below and behind. Incision at angle of scapula evacuated several ounces of pus, which came not from shoulder joint but from around it. Cultures showed streptococci. At one place bare bone of the seventh rib could be felt. On account of the development of diphtheria the child was sent away; all the wounds were discharging; no joints involved.

CASE 17.—Deep Cellulitis of Thigh Near Hip Joint.—S. W., 5 weeks old, was in the Babies' Hospital from February 18 to March 14, 1906; discharged cured. The child had some gastrointestinal disturbances from birth and stomatitis when ten days old. At 4 weeks a swelling was noticed in the left groin; this increased and became tender. It involved the inguinal glands and was at time of admission more marked on the outer side of the thigh. There was redness and fluctuation; the child did not move the leg; passive motion was painful. Temperature was 100.6. On the day after admission 4 ounces of thin pus were evacuated through an incision on the outer side of the thigh. There was pus in the tissues surrounding the bone but no communication with the joint. Cultures showed *Streptococcus b.avis*. The wound healed entirely in three weeks.

GROUP VII.—PERINEPHRITIC ABSCESS, ETC.

CASE 18.—Perinephritic Abscess, Bronchopneumonia, Marasmus.—H. D., 7 months old, was in the Babies' Hospital from Jan. 21 to Feb. 22, 1904. Death occurred from bronchopneumonia. The baby was brought to the hospital because it was wasting and crying all the time and had fever. On examination the abdomen was found enlarged, its superficial veins distended over the diaphragm. The liver was one inch below the ribs and the spleen just felt. Superficial lymph nodes were found slightly enlarged, particularly near the axillæ. The abdomen became more distended while in the hospital and began to point in back on the left side. Temperature ranged from 102 to 103.8. On January 30 the abscess was incised and about 1 ounce of pus removed. After the operation the temperature varied according to the freedom of the discharge. Finally the baby refused food and died in an attack of edema of the lungs.

DIAGNOSIS

In general the first point in diagnosis is to determine whether or not the inflammation involves the joint. This would rule out scurvy and syphilitic epiphysitis. It is difficult to say at the outset that the joint is not involved; even after operation the surgeon may at times be in doubt. Next the diagnosis should be made from tuberculosis and rheumatism. Deep cellulitis of the thigh, perinephritic abscess and ischiorectal abscess should be carefully distinguished from disease in the hip joint.

TREATMENT

It is remarkable that wet dressings of aluminum acetate or of 60 per cent. alcohol or of these lotions com-

bined succeed in a surprising number of cases. If progress is not satisfactory, incision should be made at an early date. The operation need be simply an incision into the joint with evacuation and provision for thorough drainage. It is remarkable that such simple measures succeed so frequently not only in saving life, but in securing perfect functional results. Of course, when the bone is diseased, the infected focus should be thoroughly scraped out. Vaccine therapy, especially the use of streptococcus and staphylococcus vaccine, is often a very valuable aid.

CONCLUSIONS

1. Cases of arthritis and of what might be called "near-arthritis" are quite common in infants and young children.

2. In all cases a careful history of the infant from birth should be obtained. The inquiry should be directed particularly toward obtaining a history of umbilical infection, of early ophthalmia, of vaginitis, of pneumonia, typhoid and influenza.

3. The feeding history, especially the use of sterilized, carbohydrate, or proprietary foods, should be carefully scrutinized. An inspection of the gums may save an incision into the thigh. It goes without saying that the patient should be undressed entirely for examination. Men frequently fail in diagnosis, not because they do not know, but because they do not see the patient and do not make use of what they know.

4. The diagnosis of tuberculosis and rheumatism should be made by exclusion.

5. The earlier proper treatment is instituted the fewer the number of joints involved and the greater the chance of complete recovery of function.

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ABSTRACT OF DISCUSSION

Dr. C. N. Dowd, New York: The symptoms of these joint infections and other infections in infants are often so similar that diagnosis is very difficult and the most skilful and astute practitioner may fall into the trap thus constructed. Two illustrative cases have recently come to my notice—in one a meta-pneumonic hip inflammation was believed to be due to intestinal disorder. The physician and the diet were changed and hard feeling was engendered which could not even be allayed after the hip abscess was opened and the baby had recovered. The second case presented a particularly unfortunate sequence of events. A child of 1½ years, previously well, awakened from his nap crying, and from that time was feverish and ill. The attending physician, unable to relieve him, called in a well-known pediatricist, who believed the trouble to be intestinal and advised accordingly. A little later another pediatricist was called and then an orthopedic surgeon and after a few more days a general surgeon. An x-ray picture was then taken, as the region of the right hip was evidently the place of maximum inflammation. This picture revealed no abnormality, but a large abscess was opened a few days later just above Poupart's ligament. Prompt healing followed and all seemed well for a time. A few months later, however, a limp was noticed and examination and another radiogram showed a really serious condition—an absence of the head and neck of the femur, which had been destroyed by the inflammation. This, of course, made a permanent and very disturbing deformity. These cases are cited to illustrate the difficulties of diagnosis and the possible seriousness of the disease and also to indicate our debt to Dr. La Fetra for calling our attention to so important a subject.

Value of Playgrounds.—The head of the schools of New York city says: "Public playgrounds have induced children to come to school whom we could not previously reach; they are a potent instrumentality for raising the health, mentality and morals of the community."—*Hygiene and Physical Education*.