ABSTRACTS

[The abstracts are divided into the following sections: acute rheumatism; articular rheumatism (rheumatoid arthritis, osteo-arthritis, spondylitis, miscellaneous); gout; non-articular rheumatism; general articles. After each subsection of abstracts follows a list of articles that have been noted but not abstracted. Not all sections may be represented in any one issue.]

Acute Rheumatism


The author says that “such syndromes as polyarthritis rheumatica, periarthritis nodosa, endo-, myo-, and pericarditis rheumatica and transient lung infiltration with eosinophilia” are localized manifestations of the antigens-antibody reaction. There is, perhaps, a too ready belief in the completeness of the similarity that admittedly exists in the morbid anatomy of the hyperergic diseases. The 4 cases the author describes were clinically asthmatic, and all ended fatally. In all the cases the lungs showed polyarthritis nodosa and widening of the interlobular septa, and in 3 early infiltrates, as described by Klinge in the heart in acute rheumatic disease, were present. In 2 cases the pulmonary septa showed “rheumatic granuloma”. No case had endocarditis, but 1 had a myocardial granuloma. [From the illustration this might be a later coronal Aschoff body (terminology of Gross), but there is no mention of the histological state in the region of the posterior mitral root and left auricular endocardium. The author does not state whether his cases had received treatment with sulphonamides.

A. C. Lendrum.


The author assesses the value of the various diagnostic criteria as a measure of continued activity in rheumatic carditis. Two hundred boys and girls of from 6 to 14 years were observed from the beginning of an attack of rheumatic carditis to the end of the active process and for at least 6 months after the end of the active period. The only treatment was good nursing, balanced diet, and moderate amounts of synthetic vitamins. Occasionally a child was given small doses of salicylates for arthralgia. In each case there was a complete clinical and laboratory examination as well as a radiographic and immunologic investigation.

Leucocytosis.—One out of 10, no leucocytosis at all; 9 out of 10, continued leucocytosis for the first 2 weeks; 7 out of 10, continued leucocytosis at end of fourth week. At the end of 7 weeks there was no leucocytosis in any case. All cases with leucocytosis showed clinical rheumatic activity, and 9 out of 10 continued to show clinical rheumatic activity when the leucocytosis had disappeared.

Fever.—Fever was not a manifestation of cessation of rheumatic activity in this series; the average febrile period was 6 weeks.

A-V conduction.—In this series a prolonged P-R interval in a rheumatic child in the absence of other laboratory or clinical evidence was not found to be a safe index of continued rheumatic activity, and the return to a normal conduction time did not always mean cessation of activity.

Pulse rate.—This was found to be an adequate index of cessation of activity. There was no correlation between pulse rate and temperature. The rate was highest during the first 3 weeks of the disease, and was as high as 140, and no case showed a drop to below 100 before the end of the ninth week.

Sedimentation rate.—This was found not to be as reliable a guide as is commonly believed. Many cases showed a still active rheumatic condition with a normal sedimentation rate. At the end of 16 weeks a number of cases with no clinical evidence of activity had a slightly elevated sedimentation rate.

Weight gain.—This also was not found to be an index of quiescence. At the end of 7½ months all the children had reached a normal weight gain level, yet 40% still showed mild rheumatic activity.

Haemoglobin.—All cases showed a moderately severe anaemia to start with, the haemoglobin ranging from 7 to 9 g.; in 2 children it was as low as 5 g. It was only after 32 weeks that all the cases returned to 12-5 g. or more. However, 40% still showed clinical rheumatic activity after the haemoglobin was normal.

Vital capacity.—In this series vital capacity was found to be the most sensitive single index, all the children having a vital capacity of 40% or less below normal for age and body surface. None reached the normal again until 16 weeks after the onset of the carditis. This index also
failed as a specific diagnostic measurement, because some children continued to have clinical evidence of disease although the vital capacity was normal.

The relation between clinical activity and various tests is indicated in a table. The author points out that active rheumatic disease must be suspected when there is tendency to fatigue without cardiac insufficiency, or when there is emotional instability or marked pallor. Marked tachycardia with a tumultuous rhythm, and a gallop rhythm with rapid or slow cardiac rate, are looked upon as evidence of rheumatic carditis, and their absence as auscultatory evidence that carditis is at an end. However, the author finds that these criteria are inadequate in diagnosing mild smouldering carditis. Rest in bed is considered the treatment par excellence.

Richard Sands.


This is a study of 186 cases of rheumatic fever observed for three years. Salicylate was given according to three plans. In the first, small doses (2 to 7 g.) were given to relieve symptoms; in the second, large doses (10 to 16 g.) were given during the whole period of rheumatic activity, as judged by the sedimentation rate; lastly, a small group received intravenous salicylate (10 g. in a litre of normal saline) for one week, and then large oral doses (10 to 16 g. daily).

Large doses of salicylate were no more effective than small doses in reducing the sedimentation rate. It was found that large oral doses controlled fever more rapidly than smaller doses or intravenous medication. Large doses of the drug did not prevent the development of valvular lesions, or the progress of pre-existing cardiac damage. The authors found that pericarditis was more rapidly controlled by large-dose therapy. Large doses or intravenous therapy were no more efficacious than small doses in restoring a prolonged P-R interval in the electrocardiogram to normal limits.

The authors point out that when large doses are given the signs of toxicity must be thoroughly understood and promptly recognized. Tinnitus and slight deafness are constant with doses of 10 g. daily. The earliest warning sign of toxicity is hyperpnoea and, if this is disregarded, tetany, maniacal delirium, and loss of consciousness may occur. These symptoms promptly subside with cessation of salicylate and the administration of sodium bicarbonate. It was found that 7 to 8 g. of sodium salicylate daily in divided doses maintained a blood level of 35 to 50 mg. per 100 ml. in young adults. No bicarbonate was given with these doses, and toxic reactions rarely occurred.

Intravenous therapy offered no advantages over oral administration. It could be claimed that large amounts of salicylate early in the disease caused an early reduction in fever, which, by decreasing the heart rate, lessened the work of the heart but did not prevent heart damage. Early relief of symptoms must not be allowed to lull the patient into a sense of false security in the belief that he is cured. If he is allowed to resume normal activity at once he may suffer as much damage, or more, than if he was untreated. Sodium salicylate in any dosage does not effect a cure, and so far there is nothing in drug therapy which will obviate the need for prolonged rest and reduction of physical activity.

James W. Brown.


In Dublin, Georgia, U.S.A., 400 school children, average age 12½ years, of whom 59% were white and 41% were coloured, were examined for evidence of previous rheumatic fever or present rheumatic heart disease. Eight children, three of them coloured, were found to have had rheumatic fever; four children, one a negro, had rheumatic heart disease.

E. B. G. Reeve.


Articular Rheumatism

(Rheumatoid Arthritis)


There is a dearth of literature on gold treatment of chronic polyarthritis in childhood. The author reports his results in 6 cases ranging in age from 4 to 14 years. He discusses the confusing nomenclature of chronic arthritis in childhood, concludes that the term “Still’s disease” should be dropped, and affirms that a condition is found in children which is in every way comparable to that of rheumatoid arthritis in adults, even in its favourable response to gold administration. The erythrocyte sedimentation rate returned to normal in all his cases after treatment; this return is taken as a criterion of cure.

“Solganal B” was used as a 2% solution in oil containing 1 mg. gold in 1 ml.; injections were given twice weekly, the dose varying between 1 and 4 mg. of gold, and a course consisted of 10 injections. Several courses with an interval between were usually given. In one case, improvement was only seen with the fourth course. No toxic reactions occurred. Two cases showed a harmless eosinophilia (up to 20%) which subsided on stopping the gold. Five patients were completely cured, and the sixth was left with some residual disability in the knee. S. S. B. Gilder.


An 11-year-old coloured girl, suffering from severe Still’s disease, had been treated without success with salicylates given by mouth and intravenously with large doses of sulphonamides, with intramuscular and intravenous penicillin, and with massive vitamin-D therapy. She also had general treatment, repeated blood transfusions, and physiotherapy. As the pain persisted it was decided to try oral and intramuscular prostigmin. She was given intramuscular injections of prostigmin methyl sulphate [the dose is given as “one ampoule, 1-2,000, three times daily”] and 15 mg. of prostigmin bromide by mouth once daily for 2 months. The intramuscular doses were then stopped, and the oral doses increased and later decreased. At the same time orthopaedic measures were taken which consisted of tenotomies and plaster splinting. The response to treatment with prostigmin was almost immediate, and after 5 months all signs of activity of the disease had disappeared and function was very good. The author discusses the manifestations and differential diagnosis of Still’s disease. The patient described had had an attack of pericarditis which cleared up eventfully. No new light was thrown on the aetiology of the condition. W. Tegner.


The author reviews recent work on the aetiological relationships between rheumatic fever and rheumatoid arthritis, with special reference to the cardiovascular system. The cardiovascular system was examined in 33 consecutive cases of rheumatoid arthritis; 22 of the patients were females. No evidence of mitral stenosis was found. In 1 case only, a woman of 68, was there a loud apical systolic bruit which was considered to be organic; in 8 cases there was a functional murmur. The electrocardiograms of 29 patients showed no changes suggestive of rheumatic fever, though in some cases there were T-wave changes corresponding in all probability to the state of arterial degeneration occurring in old people, who formed the majority of the patients in this series. No macroscopical or histological changes of rheumatic fever were seen in the 1 case which came to necropsy. [These results are at variance with the reports of some, but not all, workers, and serve to emphasize the limited value of comparisons between the clinical manifestations of rheumatic fever and rheumatoid arthritis in the present state of our knowledge of the rheumatic diseases.]

J. W. Brown.


The authors have devised a “therapeutic score card” as a means of assessing the results of treatment in chronic rheumatoid arthritis. Debit marks are allotted to the chief features of rheumatoid arthritis. The total debit marks subtracted from 100 represents the patient’s index number as a percentage of normal; a rise in this figure gives a measure of the patient’s improvement. At the first examination each feature, even if present in slight degree, is awarded the maximum debit marks, and these are reduced at subsequent examinations if improvement has occurred. Thus, apart from the appearance of a new feature, there is no provision for recording a deterioration. The features selected are active joint swelling, sedimentation rate, articular mobility, joint tenderness, weight gain (or loss), haemoglobin, pain, well-being, and functional capacity.
ABSTRACTS

Active joint swelling is debited 50 marks at the original examination. At subsequent examinations the debit may be reduced as far as 40, but never below this while any trace of active swelling remains. Active swelling must be carefully distinguished from permanent thickening of the joint. Rates of 15 mm. by the Cutler method and 25 mm. by the Westergren are taken as bases for the sedimentation rate. A rate at or above these levels requires the maximum debit of 15 marks. The debit is not increased if the rate should rise, but a proportionate reduction is made if it should fall. The other features carry a maximum debit of 5 marks each, giving a possible total of 100 debit marks. The standard haemoglobin level is taken as 80%. The authors claim that their scheme provides a set of criteria which, even if derived from different observers, gives reliable information for the evaluation of therapeutic agents.

H. F. Turney.


The current medical view that true rheumatoid arthritis is due to infection is open to criticism. It is based chiefly upon superficial resemblances between rheumatoid arthritis and certain infectious processes such as gonococcal arthritis. Rheumatoid arthritis has now emerged as a clinical entity distinct from other types of polyarthritis in which the causation may reasonably be inferred to be metastatic from a focus of infection, but aetiological confusion still persists. Moreover, certain serological observations have been interpreted as supporting an infective aetiology in rheumatoid arthritis. The author, who is Research Fellow in Arthritis in the University of Pennsylvania, has examined the foundations of the bacterial theory, and more specifically the haemolytic streptococcal theory, of the origin of rheumatoid arthritis, and has found them to be insecure. In his selection of material for this investigation he used only typical cases of at least a year's duration and with symmetrical involvement of the proximal interphalangeal joints of the fingers.

The general arguments against a bacterial origin which he quotes are as follows: The presence of bacteria of any species has not been consistently demonstrable in the blood of patients with rheumatoid arthritis. The extraordinary prolongation of the active stage of the joint lesions in this disease and their tendency to symmetry are arguments against bacterial aetiology in general, and their indifference to both sulphonamides and penicillin is against a streptococcal aetiology in particular. With regard to antistreptolysin and antifibrinolysin tests, these antibodies were not found in significant titre, and were never comparable with those found in cases of acute rheumatic fever or in known haemolytic streptococcal infections. The sera of many patients with well-established rheumatoid arthritis, moreover, have a tendency to precipitate in the saline control tube of a precipitin test, especially after centrifugalization. He points out that many rheumatoid arthritis sera also differ from the normal in being able to agglutinate suspensions of fine collodion particles. From these observations he concludes that supposedly specific reactions in which the serum of patients with rheumatoid arthritis takes part should be interpreted with considerable caution.

Following on these findings, and apparently dependent on them, the author found that the sera of patients with rheumatoid arthritis will precipitate the somatic carbohydrate of the pneumococcus a little more strongly than does the serum of non-arthritics. In the same way the rheumatoid serum also agglutinates non-encapsulated pneumococci a little more strongly. He explains these findings as being due to a non-specific enhancement of the action of normally present antibodies to Gram-positive cocci of many types. He considers: (1) the importance of the distinction between true rheumatoid arthritis and arthritis of other types, particularly that which is secondary to a focus of infection, is of great importance; (2) that the foundations of the bacterial theory, and more specifically the haemolytic streptococcal theory, of causation of true rheumatoid arthritis are insecure; (3) that supposedly specific reactions in which serum from patients with rheumatoid arthritis is employed should be suspect; and (4) that the increased ability of such serum to agglutinate other Gram-positive cocci, such as the pneumococcus, appears to be due to a non-specific increase in the action of normally present antibodies.

W. S. C. Copeman.


ANNALS OF THE RHEUMATIC DISEASES

(Spondylitis)


A man, aged 47, suffered for 18 months from ankylosing polyarthritis, probably of tuberculous origin, with involvement of most joints and also the spine. He had noticed difficulty in swallowing solid food, and located the obstruction at the root of the neck. Radiological examination of the spine showed decalcification of the vertebral bodies, with numerous osteophytes bridging the intervertebral spaces, especially between the second and third and the fifth and sixth cervical vertebrae. At the latter level a rather large, partially calcified projection 6 to 7 cm. in height spread out in front of the spine. There was no continuous calcification of the anterior vertebral ligament. Other possible causes of dysphagia were excluded, and after discussing the part played by spasm the authors conclude that in their patient the dysphagia was due to direct compression of the pharynx by the vertebral osteophytes.

T. G. Reah


A common clinical syndrome, which often ends in cervical spondylitis, is described, and named "the cervical syndrome". The prominent symptom is the presence of paraesthesiae in the hands, coming on characteristically in the early hours of the morning. It is accompanied by paresthetic pains in the arms, especially in those whose work involves a fixed position of the neck in flexion, as in typing or sewing. Pain is felt at the deltoid insertion, and at the epicondylar origin of the extensor muscles of the forearm. Later there is a painful stiffness of the neck, and pain radiating from the nape to the occipital region and the shoulders. Systemic symptoms, such as angina pectoris, mental torpor and irritability, and, rarely, complaints of choking or difficulty in swallowing, may be associated. In the later stages there are cervical crepitus and radiological evidence of spondylitis. Chronic pharyngitis and tonsillitis are practically constant associations.

Arguments are advanced supporting the hypothesis that this syndrome is caused by a rheumatic inflammation of the soft tissues of the spine—a perispondylitis, the end-result of which is a spondylitis. It is pointed out that symptoms may appear long before there is radiological evidence of osteophyte formation, and, therefore, the suggestion that symptoms are due to the mechanical pressure of osteophytes on cervical nerves is regarded as untenable. It is presumed that the inflammatory oedema provokes disturbances in the adjacent sympathetic nerves, with ensuing vasomotor disorder responsible for the numbness and paraesthesiae of the hands. The aetiology is discussed, and attention directed to the associated pharyngitis and tonsillitis. It is suggested that there may be a direct spread of infection by lymphatics from the pharynx to the adjacent soft tissues of the cervical spine. The possibility is suggested of a causal relation between this condition and spondylitis, muscular rheumatism, neuritis, neuralgia, osteoporosis of the spine, chronic meningitis, and vegetative disturbances. [Kenneth Stone.]

(Miscellaneous)


Two cases of Reiter’s syndrome (polyarthritis, urethritis, and conjunctivitis) are described in which serial electrocardiograms revealed transient prolongation of the P–R interval from 0·18 and 0·19 seconds respectively to 0·24 seconds. The heart appeared otherwise normal, although a faint localized apical systolic murmur was heard in both. There was no evidence of preceding pyogenic infection in case 1; but there had been a series of infective incidents in case 2, the last (cellulitis of the calf requiring incision and drainage) beginning five and a half weeks before the first manifestation of Reiter’s syndrome (urethritis), and nine weeks before the onset of polyarthritis. The significance of the prolonged P–R interval is doubtful.

Paul Wood.


The author records a case of Reiter’s disease in a soldier of 41 years who, while serving overseas in August, 1945, developed purulent conjunctivitis. The next month, on return to action, in addition to the active conjunctivitis, which was still present, he had a purulent urethral discharge which did not contain gonococci. Serological examinations were likewise negative. Parenteral penicillin (dose unspecified) led to the disappearance of the discharge within 5 days. Two months later, however, there occurred in the right eye an intraocular haemorrhage followed by iritis which ran a course of 10 or 12 weeks. Stiffness of the ankles, knees, and shoulders then occurred and, 2 weeks later, swelling of the second left metacarpo-phalangeal joint, associated for the first time with a pyrexia and a scaly eruption of the soles.

In December, 1945, the patient was admitted to hospital under the care of the author, when,
ABSTRACTS

in addition to the above, he had painful swollen ankles; stiff, painful, but not swollen knees, left shoulder, and elbow; and slight bilateral conjunctivitis. There were no irritis, urethral discharge, or pyrexia, and the routine serological tests were normal apart from the erythrocyte sedimentation rate, which was 106 mm. in 1 hour. Nineteen days after admission a "course" of mycorisin was started, and this was followed by a slow but steady improvement of the polyarthritis, the patient being able to walk within 2 months and having no subsequent relapse after a follow-up of 10 months. A month after starting gold therapy, however, there was a relapse of the iritis, which resolved during 10 weeks of local therapy, to be followed in May, 1946, by irritis in the left eye, which similarly disappeared in about 8 weeks. During the first 12 weeks there was an irregular pyrexia never exceeding 98.8°F, while the keratoderma blennorrhagica of the soles resolved pari passu with the joint lesions.

[No mention is made of the existence or otherwise of balanitis cincta sicca, the actual amounts of gold salts employed, or the subsequent behaviour of the erythrocyte sedimentation rate. Fever therapy would probably have considerably shortened the duration of the iritis, though the possibility of a slow but steady response to gold salts is in accord with the findings of other workers even if doubt is expressed in the summary whether the gold has exerted any specific effect.]

R. R. Wilcox.


An epidemic is reported, in a Royal Australian Air Force unit stationed in Australia, of a mild acute polyarthritis associated with lymphadenitis and a transient exanthem. Three similar outbreaks had occurred previously in the same area. The report gives a detailed account of the clinical features of 51 cases. Illness was mild, with little or no malaise, and with pyrexia only in the more severe cases; 16 required in-patient treatment. The duration ranged from a few days to several weeks; more than half of those affected had completely recovered by the seventh day. A dull aching and a feeling of stiffness in several joints were the initial symptoms. Pain had abated within 4 or 5 days; residual stiffness quickly responded to exercise, leaving no joint sequelae. In the first few days joints were tender, but in only 15 cases was there any swelling from synovial or periarticular effusion. Tender enlarged lymph nodes, especially in the axillae and inguinal regions, were usual. A generalized palmar rash was observed in 3 cases, beginning 24 to 48 hours after the onset and disappearing by the fourth day. Twelve patients had pyrexia for 4 to 6 days, temperatures usually ranging from 99-6°F to 100-6°F. On clinical grounds it was thought possible to exclude a dysenteric arthritiis, the joint manifestations of dengue, acute rheumatism, and rheumatoid arthritis. Laboratory investigation of the epidemic was not practicable.

Kenneth Stone.


A series of 94 women with Heberden’s nodes were investigated to discover what proportion had noteworthy degenerative disease of other joints, and to make a comparison with degenerative disease in a control group of 109 patients with no familial history of nodes. The investigated group had an average age of 59-7 years, with individuals ranging in age from 36 to 76, while the control group had an average age of 55-9 years, with individuals ranging in age from 32 to 77. Of the women with Heberden’s nodes, 12 (12-6%) were found to have degenerative joint disease, 11 in one knee and 1 in a hip, the disease in no instances being severe enough to incapacitate the patient. In 19 other patients who complained of “arthritis and rheumatism”, and who resorted to acetylsalicylic acid for relief, there were no objective signs to warrant a clinical diagnosis of degenerative joint disease. Crepitus as a sign was noted in 34 cases (36%) and was looked on as abnormal but in itself not sufficient for a diagnosis of degenerative joint disease. It was not a forerunner of future disease. Its significance in these cases was not clear. In the control series of 109, only 3 had definite degenerative joint disease, 25 (23%) had joint crepitus, and the others appeared to be free from disease.

The author states that Heberden’s nodes are a particular form of degenerative arthritis, the incidence of which is influenced by age, sex, and race, and that heredity is the most important single factor, the condition being dominant in the female and recessive in the male. Genetically the theoretical incidence in the female is 10 times greater than in the male, and this corresponds with an observed incidence of 3% in a male group and 28% in a female. Heberden’s nodes are to be regarded as a form of osteo-arthritis, since degenerative changes in other joints occur 6 times more frequently in these patients than in the control series. The presence of the nodes betokens an increased susceptibility to degenerative joint disease.

Richard Sands.

ANNALS OF THE RHEUMATIC DISEASES

Gout

Gouty Rheumatism. (Rhumatisme goutteux.)

The manifestations of rheumatism and gout occur together more often than is generally supposed. The name "rhumatisme goutteux" is used provisionally to denote this combination. The diagnosis of this condition is important; many cases of atypical gout are diagnosed as rheumatic and given entirely inappropriate treatment. Points in differential diagnosis, which may be extremely difficult, are the greater likelihood of a family history of arthritis and of signs of arteriosclerosis in gout, while a study of the blood chemistry and of radiographs may help. Gout attacks tend more frequently, and the pain is more intense than in rheumatism, but the gouty individual, apart from his attacks, is of a more cheerful disposition. Lastly, the effect of colchicum should be tried. The author has used Umber's test by giving an intravenous injection of 500 mg. of uric acid with 1 g. of piperazine dissolved in 40 ml. of physiological saline. In the normal subject, the uric acid level in the blood falls to its pre-injection figure within 24 hours. S. S. B. Gilder.

Non-Articular Rheumatism

Physiotherapy in Peri-arthritis of the Shoulder.

The aetiology of the so-called peri-artritic syndromes of the shoulder varies. In 70 out of 100 cases observed by the authors the primary cause was a fibrotic sclerosis of the subacromial and subdeltoid bursae. This condition is usually painless. Peri-articular calcifications are relatively rare, while tenosynovitis, particularly of the long head of the biceps, is met with in about 20% of cases. This last condition, which is the most painful, usually improves spontaneously in a few weeks or months, while the most obstinate cases are those which show peri-articular calcification.

The radiographic examination is negative in about 70% of cases. Peri-articular calcification accounts for 5%. In 17% of the head of the humerus presents a typical "hatchet" deformity, while the remaining 8% show either changes produced by a previous trauma or localized decalcification of the humeral head, mainly in the lesser tuberosity, or signs of a chronic acromioclavicular arthritis.

Of the various treatments recommended, massage is particularly useful in cases of synovitis and peri-articular calcification. Infiltration analgesia affords only temporary relief. Short-wave diathermy has proved disappointing, while infra-red treatment seems to be generally soothing. Radiotherapy was successful in the majority of cases. The pain is relieved by about five daily doses of 50-100 r of semi-deep rays (150 kV, 5 mm. aluminium filter). In ankylosing peri-arthritis the author advises 8 weekly treatments of 200 r each of a similar radiation, given alternatively to the front and back of the joint. A. Orley.

Rheumatic Polytenosynovaginitis.

It is known that the tendon sheaths can be affected in the course of both acute gout and chronic rheumatism. But there is little information in the literature about "tendovaginitis rheumatica", where tendon sheaths rather than joints seem to take the impact of the disease process. Clinical notes of 2 cases are recorded. In the first the development of pancarditis and rheumatic nodules made it probable that the disease process was rheumatic in nature. The girl had painful swelling on the palmar aspect of both wrists, and fleeting joint pains. Some nine months later there was still free movement in all the joints, on the palmar aspect of each wrist was a circumscribed soft swelling the size of a plum, connected with the flexor sheaths, and there were similar swellings in the peroneal tendon sheaths below the lateral malleolus. Biopsy showed a chronic tendovaginitis with no specific features and no appearance of tuberculous infection. Cultures were sterile. During the next four months typical subcutaneous rheumatic nodules developed. The erythrocyte sedimentation rate was 48 mm. in the first hour, later increasing to 95 mm. Haemoglobin was 70%, and the white cell count 4,000 per c.mm. The girl showed evidence of a deficiency of the sex hormones. Pericarditis and endocarditis developed later. The second case was one of primary chronic polyarthritis in a patient aged 28, which began with symmetrical tendon-sheath swellings on the palmar and dorsal aspects of the wrists. Biopsy eliminated tuberculous infection, and showed the histological characters of a non-specific granulation tissue. With spread of the articular manifestations the swellings abated.

Chronic polytenosynovaginitis was first described in 1913. Mostly symmetrical, circumscribed painful swellings develop in tendon sheaths of hands and feet, often containing a sterile serous exudate. The process is slow and progressive, at times with acute exacerbations. Aggravation with menstruation and regression in pregnancy, have been noted. Occasionally bursae are affected. Histologically rheumatic polytenosynovaginitis shows an infiltration with lymphocytes in groups comparable.

The authors consider that the advantages of exact location of disc and root lesions by intrathecal injection of lipiodol are outweighed by the disadvantages, such as pain and encystment of the oil. Possible alternatives discussed are the use of "pantopaque", which is difficult to remove afterwards, and "abrodil", which requires a preliminary spinal analgesic. Therefore they consider that the ideal method is to determine the level of the lesion from clinical examination. Straight x-ray photographs centred over discs L4 and L5 and L5 and S1 are also of value.

The conclusion is reached that by consideration of the state of the ankle-jerk, the distribution of sensory disturbances, the production of pain on pressure, and the appearances on direct radiography, it is possible to determine which is the affected disc in 90 to 95% of cases, without recourse to lipiodol. In the doubtful cases the authors prefer to explore both the fourth and fifth lumbar spaces, without laminectomy.

[Most of the conclusions reached will be already familiar to readers in this country, but it must be remembered that they will be new to many French readers, who have been isolated from British, American, and Swedish work during the war.] E. G. Sita-Lumsden.

ANNALS OF THE RHEUMATIC DISEASES

General Articles


This rare syndrome is characterized by rapid swelling of joints, which become red and painful, with restriction of movements. The attacks last a short time, sometimes a few hours only, sometimes a day or a week. Different joints are affected, either simultaneously or shortly after one another, sometimes within hours but mostly after one or several days. The joints themselves, as well as the periarticular tissues, are swollen. General symptoms, including fever, are absent. Those affected are usually under 40. The attacks may be numerous and at intervals of days or months. The joints most often attacked are those of the fingers, but the wrist, elbow, shoulder, and knee may be involved. The E.S.R. is increased (average, 30 mm. after 1 hour). There is relative lymphocytosis, but no eosinophilia or change in the blood chemistry. The x-ray picture is normal. The aetiology is unknown.

The present author’s patient conformed to this description, although his age was 50. The joints, which were red, painful, and stiff, were attacked within a few days of each other, in the following order; the second, fourth, and third fingers, and the wrist of the left hand. In any particular joint the lesion lasted one or two days only. The E.S.R. was 35 mm. after one hour. The blood count showed 7,000 leucocytes per c.mm., of which 38% were lymphocytes. There were no eosinophils; the blood uric acid was normal, and x-ray examination negative. The attacks stopped after large doses of pyramidal and short-wave treatment. - R. Salm.


The modern conception of physiological rest, as originally taught by Hytton and Hugh Owen Thomas, is brought up to date. The author has added some ingenious modifications to various treatments in physiological position of arthritic joints and peripheral nerve injuries. There is a table showing the optimal positions for the treatment of arthritic joints—positions which must also be suitable for ankylosis if necessary. He pleads for standardization of orthopaedic appliances in order to decrease their cost. [This article should be read in extenso by all interested in arthritis, particularly if they are not so well acquainted with the details of splintage as are most orthopaedic surgeons.]

- V. H. Ellis.


The process of decalcification of bone in disease is discussed, and the fate of the lost calcium speculated on. Apart from parathyroid influence and the possible effect of alterations in acid-base equilibrium, hyperaemia is considered important among causes of decalcification. Infection and trauma produce a reflex hyperaemia of bone and consequent loss of calcium.


This paper describes the results of intravenous injection of curare in 17 patients with limitation of joint movements; the primary object was to determine what part muscle spasm played in these cases. An initial injection of 20 to 50 mg. of "intocostrin" was followed by further small injections until the patient was unable to lift his head from the table and the hand grip was weak; in most cases a total dosage of 100 mg. was given. With this dosage, objective interference with respiration was not observed; the patients felt dizzy and had ptosis and strabismus. In 11 patients the joint stiffness was a sequel of fracture of neighbouring bones; the other patients suffered from arthritis (3), spastic palsy, contracture following burn, and recurrent dislocation. In 8 of the 17 patients, increase in the range of movement occurred with curare; 7 who showed improvement were in the fracture group, and the remaining 1 had a spastic palsy. In those patients in which curare increased the range of movement there was relief of pain, confirming the view that muscle spasm can cause pain. It is suggested that patients whose response to curare shows that spasm is present are likely to respond well to physiotherapy. In 5 cases the increased movement with curare was still present a week after the injection; to explain this the authors say: "It appeared from arthritis, such a spasm, once initiated, perpetuates itself by discharging afferent proprioceptive impulses which reflexly maintain the spasm in a vicious cycle". [They do not mention the possibility that the patient will permit a fuller range of passive movement once it has been demonstrated to him that such movement can occur painlessly.]

- D. A. K. Black.
This calcium may be eliminated from the body in the urine and may also appear in the skin, for example, in scleroderma. Or it may be retained, as in the chronic rheumatic diseases. Osteoclasts may be involved in its removal, or a simple osteolysis may occur without their intervention. If the calcium is retained it may be deposited afresh in the tissues near the bone, e.g. the deposition in cartilage in osteochondromatosis; in the cruciate ligament in knee injuries; in bursae such as the subacromial bursa, giving rise to pain and stiffness. The author considers that the calcium deposited in the ligaments in spondylitis comes from the decalcified vertebrae.

S. S. B. Gilder.


Three patients are described who had variable subcutaneous nodules. The first, a chauffeur aged 32, complained of pain in the lower limbs and hard painful nodules under the skin for four years. The pain was in the joints and had been intermittent. On one occasion the ankles had swollen, and once there had been fever. The nodules had varied from 10 to 30 mm. in diameter. With the nodules the skin had been red over them. Clinically they resembled the Darier-Roussy type of sarcoid. The patient was pale, thin, and feverish. The tuberculin reaction (1 in 1,000) was positive. Skiagrams of the bones, joints, and chest appeared normal. Histologically, a nodule consisted of an infiltration of large epithelioid cells partly grouped in foci confined to the subcutaneous fat with fibrous bands in one part and a medium-sized vein containing an old organized thrombus in another part. The appearance was that of a sarcoid developing around a thrombosing phlebitis. Three of the six nodules disappeared soon after the biopsy. Eight new nodules were then seen. He was given large doses of vitamin D but more nodules continued to appear. Later he became clear of nodules but continued to complain of fatigue, dyspepsia, and headache.

A man, aged 34, had had two nodules on his left knee—one for four months, and one for two months. They were subcutaneous, hard, and painless; the skin over one was violet and over the other of normal colour. There was a third nodule on his right arm. His general condition was excellent. The tuberculin reaction was strongly positive and the blood count normal. Biopsy showed an inflammatory infiltration of the subcutaneous tissue, mostly but not entirely focal. The cells were epithelioid with a border of lymphocytes at the periphery and a very few giant cells. There were no vascular lesions. The appearance was of a subcutaneous sarcoid resembling Schaumann's disease. Three weeks after the biopsy all the lesions had disappeared.

A woman aged 42, had had a basal-cell carcinoma of the nose for three years, during which time she had had pale red nodules 5 to 15 mm. in diameter on the medial aspect of her thighs. The nodules lasted a week or longer and new ones kept appearing. The Wassermann reaction and the tuberculin reaction (1 in 1,000) were strongly positive. She had albuminuria without casts. Biopsy revealed interstitial oedema in the corium. In the subcutaneous fat were foci of histiocytes and lymphocytes but no epithelioid or plasma cells. The foci were found around thrombosed veins. She was given intravenous injections of mercury cyanide and the albuminuria decreased but the nodules remained unchanged. It is suggested that the nodules were manifestations of an allergic reaction to an unascertained antigen.

E. Lipman-Cohen.


Brachial neuritis and fibrositis should not be lightly diagnosed as causes of cervico-brachial pain. More attention should be focused on the cervical intervertebral disc as the agent responsible.

Cervical pain, acute, subacute, or chronic, intermittent or continuous, is a constant symptom; stiffness of the cervical spine, with increased pain on lateral flexion towards the affected side in herniation and away from the affected side in rupture of the disc, is a prominent feature. Localized tenderness over the affected interspace is an important sign, especially in degeneration of the disc; the best method of eliciting the sign, according to the author, is with the patient lying prone with his arms by his side, his chest supported on a pillow, and his cervical spine flexed. Symptoms of nerve-root involvement may be found in all three conditions, but more commonly in degeneration and herniation than in rupture of the disc; there may be referred pain along a part or the whole of the root distribution, tingling and numbness, some loss of pain and touch sense, and diminished or absent reflexes.

Treatment should be conservative, at least at first; on rare occasions only is there any need for operative interference.

The lesions in thoracic intervertebral disc disease are similar to those affecting cervical discs but are not so common. The greatest incidence was found at the junction of the fixed thoracic portion with the more mobile lumbar spine (D 10 to D 12), the eleventh thoracic disc being most frequently affected. The symptoms are comparable to those of cervical disc lesions.

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ABSTRACTS

127

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mentioned. However, 4 patients have been submitted to operation, 3 with degenerate discs and 1 with a herniated disc. In 2 there have been excellent results; the remaining 2 have been operated upon too recently for assessment.

David Trevor.


In 1943 the author carried out some investigations on the frequency of rheumatic diseases in Sweden (Upsala Låk Fören. Forh., 49, 303). The present paper refers to further investigations carried out in 1944 and 1945, and gives a summary of the results. Altogether 72,000 persons were investigated, one-half from rural districts and the other half from villages. In coastal districts rheumatic fever and rheumatoid arthritis were found to be more common and more malignant than in the inland districts; this difference was, however, more pronounced in the rural districts than in the villages. The author’s explanation is that the climate is the decisive factor. A seasonal difference, too, was observed, the greatest frequency occurring in winter and spring. No climatological and seasonal variations were observed in cases of sciatica and osteo-arthritis. Sciatica was found to have the same incidence in all districts; osteo-arthritis was more common in rural than in urban parts. Among the total number investigated 5,679 cases of rheumatic disease were found—that is, 7,9%. At the time of investigation the disease was active in 2,945 cases (3.8%). Permanent incapacitations from rheumatic disease numbered 6,66 per 1,000 of all cases investigated; the number of permanently incapacitated persons in the whole of Sweden, therefore, amounts to about 42,000.

F. K. Kessel.


OBITUARY

Dr. Sydney Monckton Copeman, who recently passed away at the ripe age of 85, had a distinguished career in the sphere of public health. Qualifying in 1885, he became a medical officer of the Local Government Board in 1891, and in that capacity did most valuable work in epidemiology, notably in the study of vaccinia and variola. His researches into the bacteriological purification of calf lymph, embodied in the Milroy Lectures in 1898, led to the adoption of glycerinated calf lymph in lieu of arm-to-arm vaccination in this country and many others, rendering vaccination a much safer and simpler operation; with this reform his name must always be associated.

An efficient administrator, he did not neglect the laboratory, and in 1903 he received the highest honour in the scientific world when he was elected a Fellow of the Royal Society. This and many other distinctions which marked his career have been fully set out elsewhere. His interest in the problems of epidemiology was also shown by his advocacy of immunization against diphtheria, in which he was an early pioneer.

When he retired from the Ministry of Health in 1925 he devoted himself to the affairs of local government, and served for many years on the London County Council and the Hampstead Borough Council, where his knowledge of public health was of the greatest value.

His wide culture, tact, and courtesy, and his generous hospitality, gained him a circle of friends among whom his memory will not soon be forgotten. Although rheumatology did not come within the scope of his generally recognized activities, he was an honorary life member of the Empire Rheumatism Council, and he may be credited with keen interest in the subject since his son, Dr. W. S. C. Copeman, has done and is doing such important work in this sphere and has evidently inherited many of the qualities of his distinguished parent. To him the sympathy of readers of the Annals will be generally accorded.