Abstracts

These abstracts have been specially commissioned for this Journal. Many of the titles have been taken from Abstracts of World Medicine and Ophthalmic Literature, published by the British Medical Association and the references to these sources are given. The subjects are arranged in the following sub-sections:

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Not all sub-sections may be represented in any one issue.

Rheumatic fever

A Genetic Study of Rheumatic Fever Clustering in Families

Rheumatogenic and Nephritogenic Streptococci STOLLERMAN, E. S. (1971) Circulation, 43, 915

Rheumatoid arthritis

One hundred regular hospital attenders with rheumatoid arthritis were studied clinically and radiologically with a view to establishing the incidence and effects of atlanto-axial subluxation and of cervical myelopathy.

On the basis of atlanto-odontoid separation of 3 mm. or more on lateral tomography in flexion a diagnosis of subluxation was made in 36 patients. 24 of these 36 patients had clinical evidence of pyramidal-tract disease, but similar signs were present in 10 patients without subluxation. The known association of subluxation with severe peripheral deformity was confirmed. Neck pain was no more common in patients with subluxation than in the remainder of the group.

[T]he paper is of current interest and contains a verbose preamble dealing with the atlanto-axial joint and its pathology. It does not, however, give much new information; in particular, the study was not designed to throw any light on natural history, prognosis, and management, where data are really needed]. J. T. SCOTT

Arthrography of the Rheumatoid Wrist Joint HARRISON, M. O., FREIBERGER, R. H., and RANAWAT, C. S. (1971) Amer. J. Roentgenol., 112, 480 10 figs, 5 refs


Changes in the Lungs and Pleurae in Patients with Rheumatoid Arthritis (Lungen- und Pleuraveränderungen bei Patienten mit primärchronischer Polyarthritis) HERRMANN, K. (1971) Radiol. diag. (Berl.), 12, 1 2 figs, 13 refs


Gout

Comparisons of Serum Lipid and Uric Acid Content in White and Negro Men BENEDEK, T. G., and SUNDER, J. H. (1970) Amer. J. med. Sci., 260, 331 206 white and 124 negro adult male blood donors from Pittsburgh, U.S.A., were studied for possible relationships between plasma lipid fractions, uric acid levels, blood groups, and ponderal indices. No correlation was found between plasma uric acid and either cholesterol or triglyceride. Uric acid levels were similar in the two races, but cholesterol and triglyceride values were higher in white subjects (in whom they tended to increase with age) than in negroes (in whom they remained constant with age). These inter-racial differences were not found in men who were thought to be taking similar diets, suggesting the importance of dietary factors. An (unspecified) association between uric acid concentration and ABO blood group was found in white subjects only.

[Some of these findings are at variance with those of other studies. Differences in methodology may be partly responsible; for example, subjects were not fasting at the time of venesection as is usually the case with blood lipid determinations.]

J. T. SCOTT
(See *Abstr. Wld Med.* (1971), 45, 772)

Renal Effects of Uricosuric Agents in the Chimpanzee FANELLI et al. (1971) *J. Pharmacol. exp. Ther.*, 177, 591

Causes of Non-azotemic Hyperuricemia VAN PEENEN (1971) *Amer. J. clin. Path.*, 55, 698


Bilateral Spontaneous and Simultaneous Rupture of the Quadriceps Tendons in Gout LEVY et al. (1971) *J. Bone Jt Surg.,* 53B, 510

Expression of Two X-linked Genes in Human Hair Follicles of Double Heterozygotes (Lesch-Nyhan Syndrome/Gene Inactivation/Lyon Hypothesis) GOLDSTEIN et al. (1971) *Proc. nat. Acad. Sci. (Wash.),* 68, 1425

Osteoarthrosis

Experimental Production of Cartilage Necrosis by Cold Injury: Failure to cause Degenerative Joint Disease SIMON, W. H., and GREEN, W. T. (1971) *Amer. J. Path.*, 64, 145 1 fig., 50 refs

Still’s disease


The case is reported of a boy who at the age of 3 years and 2 months developed a widespread polyarthritis and fever, with a raised erythrocyte sedimentation rate and leukocytosis. As he did not respond to aspirin, prednisone 20 mg./day was introduced and later changed to 600 mg. on alternate days. Despite this therapy, 6 months after the onset he still had a very severe uncontrolled arthritis with an erythrocyte sedimentation rate of 95 mm./1st hr. Cyclophosphamide was introduced at 25 mg. daily (weight 18.6 kilos). Improvement occurred on the first day and was marked in 4 days, so that the salicylate therapy could be stopped and the prednisone later gradually reduced. Cyclophosphamide was maintained at the same dosage for 13 months and then reduced and discontinued over 6 weeks without relapse. Apart from an occasional episode of acute otitis media there were no problems during therapy, and a year later the patient was still in complete remission.

The authors draw attention to the very rapid response and also indicate that this one patient does not justify a recommendation for the use of cyclophosphamide in uncomplicated cases. B. M. ANSELL

(See *Abstr. Wld Med.* (1971), 45, 771)

Other forms of arthritis


This paper from the Department of Medicine, University of Washington, Seattle, describes three patients who presented with skin rash and polyarthritis as prodromal symptoms of hepatitis. Two had had objective joint changes for 2 and 3 weeks respectively before the onset of jaundice. The third patient had arthritis of shorter duration but an initial diagnosis of acute rheumatoid arthritis was made because of the widespread symmetrical joint involvement. Rheumatoid and antinuclear factor tests were negative and the main positive findings on investigation were biological false positive tests for syphilis in two patients and changes in the synovial fluid compatible with inflammation.

Australia antigen and depressed serum and synovial fluid complement levels were present initially in all three patients. Serial testing in two patients showed disappearance of the Aust. antigen and return of the complement levels to normal as the jaundice appeared. Subsequently, Australia antibody appeared and increased in titre.

It is suggested by the authors that Aust. antigen/antibody complexes may play a pathogenic role in the joint inflammation. Other features occasionally seen with hepatitis, e.g. focal glomerulonephritis, might also be due to immune-complex deposition. D. A. PITKEATHLY

Impaired Mixed Leucocyte Reaction in some Different Diseases, Notably Multiple Sclerosis and Various Arthritides HEDBERG, H., KALLEN, B., LOW, B., and NILSSON, O. (1971) *Clin. exp. Immunol.,* 9, 201 1 fig., 15 refs

Leucocytes from genetically different individuals mixed together in culture undergo blast transformation with concomitant DNA synthesis. This reactivity was assessed in the present study by measuring 3H thymidine uptake. It was found that peripheral blood leucocytes from rheumatoid patients do not react with those from other rheumatoid patients as well as they do with leucocytes from control individuals. A similar impairment was observed among patients with disseminated sclerosis, systemic lupus erythematosus, "pelvo-spondylitis", psoriatic arthropathy, and scleroderma. The nature of this unresponsiveness is discussed and the authors speculate that defective macrophage function may be responsible. J. BALL

Periosteal Reactions in Diabetic Osteoarthropathies (Periostreaktionen dei diabetischen Osteoarthropathie) VELICKOV, L., and DJANKOV, L. (1971) *Radiol. diag. (Berl.)*, 12, 107 3 figs, 17 refs
Bone disease

Atypical Forms of Marfan's Syndrome [In Czech] VÁLKOVÁ M. (1971) Čs. Oftal., 27, 65 8 refs

The members of twenty families with Marfan's syndrome, either proven or suspected from family histories, were examined. In six families the fully-developed syndrome occurred besides its formes frustes and in fourteen families only the latter forms were encountered. The most frequent signs in the spurious forms were slender asthenic growth, arachnoid fingers or toes, high myopia, rigidity of the pupils, and, less frequently, ectopia of the lens. The author concludes that Marfan's syndrome is more frequent than suspected. Regular examination of families in every incomplete case would help in assessing its real frequency.

M. KLIMA


A report of the association of these two conditions in a 6-year-old white girl. The diabetes insipidus was controlled with parenteral vasopressin in oil.

J. H. KELSEY


Investigation of the pedigree in Marfan's syndrome is most important.

P. WEINSTEIN


Connective tissue studies


Cutis Laxa associated with Severe Intrauterine Growth Retardation and Congenital Dislocation of the Hip REISSNER et al. (1971) Acta paediat. scand., 60, 357

Nonarticular rheumatism


Pararheumatic (collagen) disease


This report from the Arthritis and Rheumatism Branch, National Institute of Arthritis and Metabolic Diseases, and the Pathologic Anatomy Branch, National Cancer Institute, National Institutes of Health, Bethesda, Maryland, is replete with clinical and laboratory details of a patient with systemic lupus erythematosus who, for a period of 3 weeks before she died, hyperventilated in the absence of an obvious cause in the cardio/respiratory system. For a terminal period of about 6 months the patient had a low serum sodium which, it was suggested, when the hyperventilation ensued, might be due to inappropriate antidiuretic hormone secretion. A sodium and water loading test was performed which gave results considered to confirm this diagnosis. The case itself appears to be an unusual one in the annals of lupus erythematosus, as the patient suffered from quite extensive neurological complications. A post mortem examination revealed the morbid anatomy for many of these as well as indicating changes in the hypothalamus that may be associated with altered antidiuretic hormone secretion.

P. D. BYERS


A 71-year-old male presenting with cardiovascular disease complained of gritty eyes for one year. A Schirmer's test showed deficient tear production. At autopsy, extensive amyloid deposits were found.

J. H. KELSEY


Three cases of this previously unreported association are reported; all were rapidly fatal. In no patient were all the features of classical thrombocytopenic purpura manifest.

J. H. KELSEY


(See Abstr. Wild Med. (1971), 45, 723)


Xerostomia in Sjögren's Syndrome SCHALL et al. (1971) J. Amer. med. Ass., 216, 2109


Polymyalgia Rheumatica and Giant Cell Arteritis with Bilateral Axillary Artery Occlusion ROYSTER and DiRe (1971) Amer. Surg., 37, 421

Polyarteritis as a Cause of Intestinal Hemorrhage CLAAB and HOLTZ (1971) Gastroenterology, 61, 99
Progestins as Treatment in Generalized Progressive Scleroderma Bernstein (1971) J. Oslo Cy Hosp., 21, 111


Immunology and serology

Characterization of IgG Complexes in Eluates from Rheumatoid Tissue Munthe, E. and Natvig, J. B. (1971) Clin. exp. Immunol., 8, 249 6 figs, bibl. This paper from the Institute of Immunology and Rheumatology, Oslo, describes the elution of complexes from rheumatoid synovial membranes and nodules of a large number of patients. Control tissue came from villo-nodular synovitis, degenerative joint disease, traumatized joints, and normal joints at autopsy. Tissue, after thorough washing, was suspended in 3M NaSCN, stirred at room temperature, centrifuged, and the supernatant dialysed. It was further treated with hyaluronidase and filtered. For quantitation, precipitation with a standard rheumatoid factor serum was used. Eluates showed a main precipitation line for IgG and another for albumin. C3 was detected in eluates alike from seropositive and seronegatives. IgM occurred mainly in seropositive cases. Inhibitor in the RA-late test inhibition system occurred in synovial membrane eluates from all groups of patients with rheumatoid arthritis, and also in rheumatoid nodules and meningeal granulation tissue. Control eluates produced no inhibitory material. Quantitative precipitation curves were similar for purified heat-aggregated IgG and several rheumatoid eluates.

A quantitative difference for IgG subclass of eluates from the normal serum distribution was shown in some cases. Free rheumatoid factor activity was present in four of 69 eluates from seropositive patients, and in only three of 29 eluates from seronegative cases. Evidence for IgG rheumatoid factor was found in three eluates which precipitated RA-late particles. After pepsin digestion of eluates, further evidence for IgG rheumatoid factor in complexes was obtained.

This work complements the finding of complexes in synovial fluid, as inclusions in ragocytes and the earlier demonstration of such components in cells of the synovial membrane by immunofluorescence. G. Loewi

Rheumatoid Factor in Nigerian Sera Greenwood, B. M., Muller, A. S., and Valkenburg, H. A. (1971) Clin. exp. Immunol., 9, 161 5 figs, 34 refs Sera from apparently healthy individuals collected during population surveys in Western Nigeria and Holland were carefully compared with respect to rheumatoid factor (RF). With the F11 latex test (LFT) 16 per cent of the Nigerian sera had titres of 1:640 compared with 4 per cent of the Dutch sera. With tests using rabbit γ-globulin as reactant, no difference between the two populations was observed. In the Nigerian sera RF reactivity was restricted to the IgM fraction, and increased with age in both sexes. An association was found between high titres of RF and high titres of malarial antibodies. No correlation was found between RF titres and the presence of infection with schistosomiasis, onchocerciasis, or filariasis. J. Ball

Differential Effects of 6-Mercaptopurine and Cyclophosphamide on Autoimmune Phenomena in NZB Mice Lemmel, L., Hurd, E. R., and Zief, M. (1971) Clin. exp. Immunol. 8, 355 3 figs, 16 refs To determine these effects, the authors at the University of Texas, Dallas, used NZB mice and determined Coombs’ titre, counts of peripheral leucocytes, and the pattern of fluorescent antibody staining of immunoglobulin deposits in the glomeruli. Daily intraperitoneal injections of the sodium salt of 6-MP or cyclophosphamide were given over to a 6 to 8 week period. With 6-MP, counts of polymorphs, monocytes, and large lymphocytes were decreased, while the numbers of small and medium lymphocytes remained unchanged. Cyclophosphamide caused a decrease mainly of small and medium lymphocytes with no alteration of the levels of the other cell types. In older animals, 6-MP produced a haematocrit fall which was not the case with cyclophosphamide. Only cyclophosphamide delayed the onset of Coombs’ positivity and of immunofluorescent detection of renal γ-globulin deposits.

It is suggested that cyclophosphamide may be more useful than 6-MP when the suppression of an established cellular and humoral immune reaction is desirable. G. Loewi


Morphology of the Erythrocyte Sedimentation Rate Talstad (1971) Acta med. scand., 190, 7

Mechanism of the Erythrocyte Sedimentation Rate Talstad (1971) Acta med. scand., 190, 11

Adjuvant-induced Arthritis in Rats. II. Drug Effects of Physiologic, Biochemical and Immunologic Parameters Walz et al. (1971) J. Pharmacol. exp. Ther., 178, 223

Therapy


This paper from the New York University Medical Center compares the effect of the intra-articular injection of Thio-tepa in 2 per cent procaine, with methyl prednisol or with 2 per cent procaine alone, on 31 patients with rheumatoid arthritis, five with psoriatic arthritis, and three with osteoarthritis. The selection was random and the trial double-blind. Each patient had one injection only. Thirty knees and 9 proximal interphalangeal joints were injected.

The patients were assessed frequently for 3 months. There were no serious side-effects. Judged by objective and subjective criteria, there was little difference in the three groups. A. B. MYLE

Controlled Clinical Trial of 1-(2'-Methyl-2'-dimethylamino-ethyl)-3-phenyl Indole HCl (A28A) in Rheumatoid Arthritis Compared with Indomethacin (Confortil) [In English] NYFOS, L. (1971) Acta rheum. scand., 17, 115 1 fig., 5 refs (See Abstr. Wild Med. (1971), 45, 771)


In advanced chloroquine retinopathy the ERG may be extinguished but the dark adaptation may remain almost normal. Three patients showing this phenomenon were extensively investigated. No definite explanation for the findinds could be obtained, and it is suggested that a number of rods, presumably distributed in a patchy fashion, survive, and these together with the unaffected bipolar and ganglion cells provide the mechanism for dark adaptation. E. S. PERKINS


The authors described three cases of cataract produced by the prolonged oral intake of prednisolone. The cataract began subcapsularly at the insertion of the canal of Cloquet. As in other forms of cataract the sodium content of the lens is found to be much higher than the potassium content. H. LYTON

Possible Unnecessary Prolongation of Corticosteroid Therapy in Rheumatoid Arthritis GLASS et al. (1971) Lancet, 2, 334

Long-term Benefits of Ibuprofen in Rheumatoid Practice GOLDBERG et al. (1971) Practitioner, 207, 343

Surgery


Other general subjects


The stiff-man syndrome is characterized by a chronic board-like stiffness involving primarily the proximal limb muscles with severe and painful spasms provoked by external stimuli. A 49-year-old female with this condition also had a right gaze deviation, with diplopia and nystagmus when forward gaze was achieved. At post mortem the changes of subacute encephalomyelitis were present throughout the central nervous system with areas of demyelination. J. H. KELSEY
