ducted blood centrifugally into the overlying periosteal capillary bed.

Discussion.—Dr. J. J. R. Duthie (Edinburgh) suggested a point of clarification. The sections seemed to show material lying outside the blood vessels after injection into the periosteum, but the bone perfusion studies showed the material in capillaries in the muscles.

Prof. Harrison said that substances injected through the periosteum could get out of the bone and then pass into the interfascicular space. The reason was that the venous pressure was higher on the inside of the bone than on the outside, so that it must come out. Once it came into the muscle the majority lay in the interfascicular space.

Prof. E. G. L. Bywaters (London) said that, regarding the very interesting pictures showing direct intramuscular injection and the spray effect, it was difficult to believe that this was entirely in the extravascular space and none in the lymph channels or blood vessels. He remembered some years ago that Edholm measured bone blood flow with particular reference to Paget's disease where there was a large blood flow, and also in some normal subjects, and he did not know whether this technique had been used since. He wondered whether Prof. Harrison had any information about relative amounts of venous flow from the surface of a long bone, like the tibia, via the periosteum and epiphysial vessels.

Prof. Harrison replied that the difference in radiological appearance between material injected directly into muscle and that after injection into bone, probably resulted from the fact that after an injection into muscle, the injection material presumably remained localized, whereas after an injection into periosteum it was possible for the substance to percolate out and give a spray effect. Measurements of blood flow had been made by da Costa, who gave figures for venous drainage from bone which were greater than from skin. He himself had not made direct measurements of venous blood flow.

2-4-6 Trihydroxybenzoic Acid in the Treatment of Rheumatic Fever. Dr. E. B. D. Hamilton and Prof. E. G. L. Bywaters (Taplow) (p. 52).

NEW ZEALAND RHEUMATISM ASSOCIATION

ANNUAL REPORT, 1959

The 12th Annual General Meeting of the New Zealand Rheumatism Association was held at Queen Elizabeth Hospital, Rotorua, on October 29, 1959. The Chairman, Dr. Rowatt Brown, and 22 members were present.

Appreciation was expressed at the generosity of the Empire Rheumatism Council in making two Travelling Fellowships available to Australasia on alternate years.

Ways and means of furthering the establishment of a New Zealand Branch of the Empire Rheumatism Council as a combined lay and professional body were discussed.

An Advisory Committee to consult with Sir Horace Smirk on medical research at the Otago Medical School was appointed.

The following Clinical Papers were given:

Sir Charles Burns: Personal Experiences in Collagen Disorders.—Attention was drawn to clinical and laboratory findings such as are within the reach of every practitioner making a day-to-day examination which should lead to a diagnosis of collagen disorder. A Peleb-Ebstein like temperature chart and high erythrocyte sedimentation rate were mentioned. In none of the cases presented had the L.E. phenomenon been observed. Improvement on steroids had been noted and relapse when the steroids were withdrawn. Long remissions occurred in some cases. Psychotic states and the collapse of a vertebra had been noted when on steroid therapy.

Dr. J. Valentine: Diagnostic Difficulties in Arthritis with Consequent Difficulties in Management.—An analysis of 166 consecutive patients admitted to Queen Elizabeth Hospital showed that 150 suffered from arthritis and sixteen from allied disorders. Of the 150 cases of arthritis, the final diagnosis was rheumatoid arthritis in 68.7 per cent.; of the remainder 14 per cent. were diagnosed as osteo-arthritis probably combined with rheumatoid arthritis. These cases were discussed and it was considered that either many cases are of mixed origin or the criteria of the American Rheumatism Association are not sufficiently discriminatory.

Because of the mixed nature of many cases, treatment should be so ordered that it will benefit every aspect of the disease. The active approach by physiotherapy and occupational therapy is advocated, drugs being used only for pain relief. Intra-articular hydrocortisone should be used freely to enable more active joint movement with less pain.

Dr. B. S. Rose and Dr. I. C. Isdale: Gout among the Maoris.*

Mr. R. Nicholson: Suppurative Arthritis as a Complication of Systemic Steroid Therapy.—Three cases of septic arthritis occurring as a complication of oral steroid therapy for dermatological conditions were presented.

In all cases there was little sign of systemic infection and the temperature was only slightly elevated but the

erythrocyte sedimentation rate was raised in each case. The organism in two cases was identified as staph. aureus. The cases emphasized the difficulty in diagnosis and the advisability of joint aspiration or biopsy to confirm the diagnosis.

**DR. T. HIGHTON:** On the Shrinkage Temperature of Collagen in Rheumatoid Arthritis, Scleroderma, and Other Conditions.—An apparatus for determining the shrinkage temperature of collagen on a biopsy specimen was described. Normal values for the shrinkage temperature of human collagen from different sites and at different ages was given. Variations from the normal, e.g. in rheumatoid arthritis, were described. A biological pattern in the shrinkage temperature of collagen from other species was demonstrated. The possible implications of these findings were discussed.

**DR. C. GRESSON:** Angiomatous Rheumatism.—A case of angiokeratoma corporis diffusum (Falry) occurring in a 37-year-old male was described, with a detailed account of the rheumatic disability. Renal biopsy findings were illustrated. The relationship of the inborn error of metabolism to the angiomas and to the rheumatic pains was discussed.

**DR. C. ALEXANDER:** Some Points in the Radiology of the Rheumatic Disorders.—This paper stressed the degree to which technical aspects affect the usefulness of radiology and the need of technique to the clinical picture. The need for a control film of the normal side in suspect rheumatoid arthritis and tuberculosis, the value of x-raying both hands and feet in any doubtful arthritis, the value of a weight-bearing lateral film of the feet and of tomography of the spine were discussed and illustrated.

The radiological findings in collagen and rheumatic diseases, shoulder degeneration and Caisson disease were discussed. The concept of osteo-arthritis as impairment of cartilage elasticity due to stress (Hersche, 1954) and the demonstration of cartilage changes after denervation (Acheson, 1958) were described and related to the radiological findings.

The conditions simulating ankylosing spondylitis were discussed and the suggestion was made that ankylosing spondylitis and Reiter's syndrome were in fact opposite poles of the same disease.

A clinical demonstration of cases was arranged by the staff of the Queen Elizabeth Hospital, and the following papers were also presented:

**DR. K. IBBERTSON:** Disorders of Calcium Metabolism in Bone and Their Treatment.

**DR. B. ROSE and DR. I. C. ISDALE:** Agglutination Tests for Rheumatoid Arthritis.

## BRAZIL

To celebrate the 10th anniversary of the rheumatism department of the General Hospital in Rio de Janeiro, presided over by Professor Pedro Nava, the Journal Brasil-Médico has issued a special number. This contains full reports of the ten symposia held in his honour, each presided over by a physician distinguished in the field of rheumatology.

The subjects are: The Field of Rheumatology (Dr. Jacques Houli); Rheumatoid Arthritis (Dr. Waldemar Bianchi); Infective and Allergic Arthritis and the Para-Rheumatic Inflammatory Disorders (Dr. Pedro Nava); Osteo-arthritis (Dr. Da Silva); Gout and Metabolic Arthropathy (Dr. I. Bonomo); Non-Articular Rheumatism (Dr. H. Seda); Vertebral Arthritis (Dr. C. V. Nunes); Ankylosing Spondylitis (Dr. N. Senise); and Rheumatic Disease as a Social Problem (Dr. D. Olinto). W.S.C.C.

## VI INTERNATIONAL CONGRESS OF INTERNAL MEDICINE

*Basel, 1960*

The VI International Congress organized by the International Society of Internal Medicine (President: Sir Russell Brain) will be held on August 24-27, 1960, at Basel, Switzerland, under the presidency of Prof. A. Gigon.

The principal subjects will be: Pathogenesis and Treatment of Oedema and Clinical Enzyme Tests.

Panel discussions will be held on: Interstitial Nephritis, Nephrosis, Diuretics, Enzymology, Serology of Rheumatic Disease, Instruction in Internal Medicine.

The official languages are German, French, and English. Programmes and registration forms (to be completed by April 30) may be obtained from the Congress Secretary:

Prof. Dr. H. Ludwig,  
Steinentorstrasse 13,  
Basel 10, Switzerland.