HEBERDEN SOCIETY

ANNUAL REPORT, 1956

It is with the deepest regret that the passing is recorded of two of our most distinguished colleagues, Professor Sir Lionel Whitby and Dr. D. Murray Lyon. Both were honorary life members of the Society, elected for their distinguished services in the field of rheumatism; their passing is a profound loss to the Society.

During the year Her Majesty the Queen has been graciously pleased to confer honours on our Member and Past President, Sir Henry Cohen, and our General Secretary, Mr. R. Victor Howell.

A further category of “Temporary Overseas Member” has been instituted to cater for those engaged in the study of rheumatic diseases who are temporarily working in Great Britain.

The following new members have been elected:

Ordinary Members: Dr. J. Ball, Mr. G. C. Lloyd-Roberts, Dr. R. I. Meanock, Dr. A. T. Richardson, Dr. Malcolm Thompson.

Associate Members: Dr. Barbara Ansell, Dr. C. J. M. Clark, Dr. P. S. Davis, Dr. Ian Gilliland, Mr. Harold Petty.

Overseas Member: Dr. I. Isdale (New Zealand).

Temporary Overseas Members: Prof. S. K. Banerjee (India), Dr. Baruch Blumberg (U.S.A.), Dr. S. C. Milazzo (Australia), Dr. Fred Shannon (New Zealand), Dr. Hugh Smythe (Canada).

The following, having taken up permanent residence abroad, were transferred from ordinary to overseas membership:

Dr. E. Dresner (U.S.A.)
Dr. R. Moore (Canada).

The following resigned during the year:

Dr. L. W. Plewes (from ordinary membership)
Dr. R. W. Stewart (from ordinary membership)
Dr. L. G. C. Pugh (from associate membership).

Dr. P. O. Williams (from associate membership).

The total ordinary membership on January 1, 1957, was 97 and the associate membership 17.

Activities

At the invitation of Dr. W. S. Tegner, the first clinical meeting was held at the London Hospital on February 24, 1956 (Annals, 15, 263). Papers were presented by Dr. Madeline Kech (Leeds) and Drs. B. Ansell, E. G. L. Bywaters, and I. Isdale (Taplow). This was followed by demonstrations of patients by Heberden members of the London Hospital staff.

At a clinical meeting arranged by Dr. Oswald Savage at the Wellcome Foundation, London, on October 19 (Annals, 15, 410), contributions were presented by Drs. Oswald Savage, A. J. Popert, and P. S. Davis (West London Hospital) and by Professor F. T. G. Prunty (St. Thomas’s Hospital).

The Heberden Round was conducted by Dr. G. D. Kersley at the Royal United Hospital, Bath, on June 1 (Annals, 15, 263). This was followed by laboratory demonstrations and the presentation of papers by Dr. M. R. Jeffrey, Dr. D. P. Page Thomas, Mr. J. T. Dingle, Mr. E. R. Cook, and Mr. J. H. Peacock (Bath).

That evening members attended a cocktail party given by Dr. and Mrs. G. D. Kersley, followed by dinner, at the invitation of the Mayor, at the Guildhall, Bath. On June 2, papers were read by Mr. Norman Capener (Exeter), Drs. D. G. Scott and A. G. S. Hill (Aylesbury), Dr. J. H. Glyn (London), and Dr. R. Alexander (Edinburgh).

The Heberden Oration for 1955 was delivered on October 19, by Dr. Walter Bauer, Jackson Professor of Clinical Medicine at Harvard, who took as his subject “Research and the Rheumatic Diseases” (Annals, 16, 1).

The Heberden Oration for 1956 was delivered on December 14, by Prof. R. E. Tunbridge, University of Leeds, who spoke on “The Connective Tissue System” (Annals, 16, 6).

The Orators were presented by the President with the Heberden Medal for 1955 and for 1956, respectively.

The Annual Dinner was held on December 14, by kind permission of the Master, at the Hall of the Worshipful Society of Apothecaries, London. Among the guests present were the Very Rev. A. C. Don, Sir W. Russell Brain, Bt., Dr. Ian Munro, and Dr. J. W. P. Thompson.

The Annual General Meeting was held on December 14 and 15 at University College Hospital Medical School and the Wellcome Foundation, London (Annals, 16, 145). Papers were presented by

Drs. J. S. Lawrence, R. J. Sladden, and J. Whyatt (Manchester): “Influence of Physiotherapy on the Rheumatic Diseases”;

Dr. V. Wright (Leeds), introduced by Prof. S. J. Hartfall: “Observations on the Diurnal Variation of Grip”;

Drs. B. M. Ansell and E. G. L. Bywaters (London): “An Analysis of Patients with Unexpectedly Raised E.S.R.s over a 3-year Period”;

Dr. B. M. Ansell (London): “Comparison of Sodium-retaining Properties of Cortisone and Prednisolone using Sodium-22”;

Drs. N. R. Ling and H. J. Gibson (Bath): “Augmenting Effect of Rheumatoid Sera in a Streptococcal Haemagglutination Test” (Annals, 16, 111);

Drs. B. S. Blumberg and A. G. Ogston (Oxford): “Effects of Proteolytic Enzymes on the Hyaluronic Acid Complex”;

253
ANNALS OF THE RHEUMATIC DISEASES

Drs. J. Forestier and P. Deslous-Paoli (Aix-les-Bains): "Radiologic Study of Sacro-iliac Joints in Ankylosing Spondylitis with reference to the Evolution" (Annals, 16, 31);

Dr. J. Sharp and Mr. D. W. Purser (Manchester): "Spontaneous Atlanto-Axial Dislocation in Spondylitis".

Grant-in-Aid

The Society acknowledges with appreciation the renewal of a grant from the Empire Rheumatism Council which has enabled its activities to be continued during the year.

Library

The Library Fund instituted last year has been increased by a generous donation from Sir Henry Dale of £100 from the Wellcome Trust for the binding of books, and the re-binding of some of the older volumes has already been completed.

The library is already a unique adjunct for historical reference purposes, and the Hon. Librarian hopes that anyone who has books on rheumatism and arthritis published before 1914, or Heberden relics of any kind, will assist in expanding it.

He thanks those who have helped in the past, and especially Dr. F. Poynter, the librarian of the Wellcome Historical Medical Library.

The following additions were made in 1956:

Presented by the Trustees of the Wellcome Medical Foundation:

Rennie, A. Observations on Gout. 1825.


Perkins, B. D. Experiments with the Metallic Tractors. 1799.

Wintringham, C. Tractatus de podagra. 1714.

Zelst, T. Libellus singularis de podagra. 1738.

Storck, A. An Essay on the Use and Effects of Colchicum autumnale. 1764.

Beale, L. S. Illustrations of Constituents of Urine, Urinary Deposits, and Calculi. 1858.

Wallace, W. Observations on Fumigations . . . as a Remedy in Rheumatism. 1820.

Purchased by the Heberden Library:

Bathgate, W. M. A Probationary Essay on Morbus coxarius. 1828. (Thesis.)

Presented by Dr. W. S. C. Copeman:


Fox, R. F. Medical Hydrology. 1913.

OFFICERS FOR 1957

President: Dr. Ernest Fletcher, F.R.C.P., 41 Harley Street, London, W.1.

President-Elect: Professor J. H. Kellgren, F.R.C.P., F.R.C.S., Rheumatism Research Centre, Clinical Sciences Building, York Place, Manchester, 13.


Senior Hon. Secretary: Dr. John H. Glyn, M.R.C.P., 6 Southwick Place, W.2.

Junior Hon. Secretary: Dr. J. Sharp, M.R.C.P., Rheumatism Research Centre, The Royal Infirmary, Manchester.

Hon. Librarian: Dr. W. S. C. Copeman, O.B.E., F.R.C.P., 41 Harley Street, W.1.

Hon. Auditor: Wilfred G. Wilks, Esq., F.C.C.S., F.R.Econ.S.

General Secretary: R. Victor Howell, M.B.E.

(Tel. No.: EUSTon 8109.)

PROGRAMME FOR 1957

Clinical Meeting on February 22 at the Royal Free Hospital.

Heberden Round on May 16, conducted by Dr. J. J. R. Duthie, at Edinburgh.

Clinical Meeting on October 18 at the Wellcome Foundation.

Heberden Oration, Annual General Meeting, and Dinner in December. Date and venue to be notified later.

Titles and short programme notes of original communications which members wish to make to the Society during 1957 should be sent to the Senior Hon. Secretary at least one month before the date of the meeting. Abstracts for publication in the Annals of the Rheumatic Diseases (approximately 300 words) should be sent in advance or handed to the secretary at the meeting. Additional meetings will be arranged if necessary.

Clinical Meeting.—The following papers were read at a meeting held at the Royal Free Hospital on February 22, 1957:

Dr. A. T. Richardson (Royal Free Hospital): Diagnostic Features of Polymyositis. The clinical, histological, and electrodiagnostic features of 21 cases of polymyositis, none of which had the skin involvement typical of dermatomyositis, were described.

Clinically the association of muscle wasting with a patchy desquamating erythema, sclerodermatous changes, or calcinosis indicated the diagnosis in six patients, and in another the wasting was accompanied by a rheumatoid type of polyarthritis. In a further three cases, the acute onset with fever, muscle pains, and tenderness was characteristic of polymyositis, and one rapidly developed muscle contractures. Of the remainder, three had proximal muscle wasting with dysphagia, but the others had no features additional to the limb-muscle weakness and were initially regarded as cases of motor neuritis or myopathy of adult life. Raised E.S.R.s were not a constant feature in this series.

Although the histological change of muscle-fibre necrosis accompanied by a variable infiltration of inflammatory cells was characteristic and distinct from interstitial nodular polymyositis, the variability of the inflammatory cell infiltration was well known.
The electromyographic pattern was distinctive in half the cases, consisting in these of a combination of the signs of lower motor neurone degeneration (abnormal intensity-duration curves; fibrillation; and positive potentials on electromyography) and those of primary muscle fibre degeneration (short duration polyphasic motor unit potentials on electromyography). It was suggested that this combined lesion could be diagnosed from the electromyograms alone if they contained both long and short duration polyphasic motor unit potentials. Their presence was readily detected by analysis of the frequency components of the motor unit potentials in the range 0·100-8·6 kilo-cycles. The remainder of the cases showed a pure myopathic pattern which was common to both polymyositis and muscular dystrophies.

DR. J. H. JACOBS and MR. R. L. MARKHAM (Royal Free Hospital): Mucoproteins in Rheumatoid Arthritis. This paper described studies on the serum mucoproteins of patients with rheumatoid arthritis based on their isolation by zone electrophoresis at pH 4·5. The technique used enabled the levels of the two mucoprotein fractions (M1 and M2) to be measured independently, and these levels were related to activity (B.S.R.) and to each other in an unselected series of patients with active disease. A significant correlation was found between M2 and B.S.R., but none between M1 and B.S.R., nor between M1 and M2. Such findings were regarded as supporting the hypothesis that these fractions may have separate origins and reflect different pathological processes within the disease complex.

By means of two-dimensional electrophoresis it was also possible to demonstrate in fraction M1 of serum in rheumatoid arthritis a component which does not appear to be present in normal serum, and the urinary fraction M1 also shows this heterogeneity, but control studies on normal urines had not been possible. Additional components were also demonstrated in M1 of serum in rheumatic fever, carcinomatosis, systemic lupus erythematosus, polymyositis, and diabetes, but the indications were that these may in some cases differ from the components present in rheumatoid arthritis.

The ability to separate the mucoproteins from the remainder of the glycoproteins by electrophoresis at pH 4·5 allowed some measure of non-mucoprotein components of the α1 and α2 globulins to be obtained. It was found that approximately 50 per cent. of the polysaccharide staining material in both α1 and α2 of the pattern obtained at pH 8·6 in sera from active cases of rheumatoid arthritis was due to the presence of the mucoproteins.

DR. E. V. HESS (Royal Free Hospital): Haemagglutination Tests in Lupus Erythematosus. While positive sheep-cell agglutination tests were now regarded by many as specific for rheumatoid arthritis, a review of the literature showed that there was a high percentage of positive reactions in some of the other connective tissue diseases, e.g. 48 per cent. positive in lupus erythematosus, 33 per cent. in polyarteritis nodosa, 26 per cent. in scleroderma, and 20 per cent. in dermatomyositis.

Various authors had noted that there was a greater tendency for a positive reaction if there were manifestations of peripheral arthritis.

Recent methods of cold precipitation of globulins (Svartz and Schlossman) and precipitation of euglobulins by dialysis (Ziff and others) revealed the presence in the supernatant fluid of a haemagglutinating factor in connective tissue diseases other than rheumatoid arthritis. It, therefore, seemed possible that these fractionation methods could be used to differentiate agglutination reactions.

By using Ziff's euglobulin test, 85 per cent. positive reactions in rheumatoid arthritis and 44 per cent. in systemic lupus erythematosus were obtained. After precipitation of the euglobulin fraction by dilution in a citrate-phosphate buffer at pH 6, the supernatant fluid was carefully decanted, dried by the freeze-drying method and re-dissolved in buffered saline solution to test for agglutination. This freeze-dried supernatant fluid was tested in 42 cases; a positive haemagglutination test was obtained in:

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Cases (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/14 cases of rheumatoid arthritis</td>
<td>0/1 cases of psoriatic arthritis</td>
</tr>
<tr>
<td>0/7 control cases of arthritis</td>
<td>1/1 cases of dermatomyositis</td>
</tr>
<tr>
<td>1/1 cases of polymyositis</td>
<td>0/2 cases of scleroderma</td>
</tr>
<tr>
<td>0/8 cases of systemic lupus erythematosus</td>
<td></td>
</tr>
</tbody>
</table>

Six of the eight cases of systemic lupus erythematosus with a positive reaction in the supernatant had joint involvement, as did two other cases with a positive euglobulin test. Six cases with a completely negative reaction had skin lesions as the predominant feature and no evidence of joint involvement. It appeared, therefore, that a positive reaction was more likely to occur in association with arthritis.

The reaction did not correlate with the duration or severity of disease, haemoglobin level, erythrocyte sedimentation rate, white cell count, or the presence of L.E. cells.

The conclusions drawn from these observations were considered to have a greater theoretical than practical interest. While there were many more helpful aids to the diagnosis of connective tissue diseases than agglutination tests, the finding of a positive test in the freeze-dried supernate could be of assistance on occasion.

DEMONSTRATIONS.—Four cases were demonstrated: one case of bilateral shoulder-hand syndrome with different aetiologies by Dr. R. P. Hickey, and three cases of systemic lupus erythematosus with unusual features by Dr. A. Beardwell, Dr. A. G. Beckett, and Dr. C. Feldman.

* Five of these had a positive euglobulin test, three a negative.