THE HEBERDEN SOCIETY

ANNUAL GENERAL MEETING

The Heberden Society held the annual general meeting for the year 1946 at 11, Chandos Street, London, on Oct. 25 and 26 last.

Proceedings began on Friday afternoon, Oct. 25, with election of the following officers for the ensuing year: President, Mr. S. L. Higgs; Treasurers, Dr. C. B. Hald and Dr. E. Fletcher; Secretary, Dr. K. Stone (Junior secretary, appointment deferred); Ordinary Members of Committee, Drs. C. W. Buckley,* W. S. C. Copeman, G. D. Kersley, M. Ray, and R. E. Tunbridge.*

Pleuropneumonia-like Organisms and Arthritis

Dr. G. M. Findlay then opened a discussion on future trends of research in rheumatoid arthritis by reading the paper on arthritis in rats and mice due to pleuropneumonia-like organisms published in this issue of the Annals, p. 153. A full discussion of Dr. Findlay's paper followed.

Dr. C. H. Andrewes said that the rodent arthritis which Dr. Findlay had described deserved further investigation, particularly as a model infection for chemotherapy studies. The disease was more like some forms of chronic arthritis in man than were other kinds of arthritis which could be readily produced in animals; further, it was susceptible to gold therapy. Dr. Andrewes rather doubted if it would prove worth while to investigate more gold compounds in this condition, but felt that there was an enormous field open for those looking for entirely new leads in the chemotherapy of arthritis. Recent reported activity of streptomycin in this rodent arthritis was encouraging. Dr. Andrewes said he had been vainly trying to obtain a strain of the pleuropneumonia-like organism concerned; a number of workers seemed to have lost their cultures during the war.

Dr. E. Klienaebger-Nobel showed a number of lantern slides demonstrating the difficulties of direct observation of pleuropneumonia-like organisms in the original material; and then the morphology of pure cultures in liquid and on solid media.

Dr. Henderson-Begg said that, working in collaboration with Dr. A. H. Harkness of St. Peter's Hospital, he had recently been culturing material from cases of non-specific urethritis and cervicitis, and cases of Reiter's disease, for pleuropneumonia-like organisms. The team had to date isolated organisms of this group from approximately twenty-five cases. Attempts to culture these organisms from the blood, synovial fluid, and conjunctival secretion of cases of Reiter's disease had been unsuccessful. The strains isolated from the urethral and cervical discharges of these non-specific cases comprised a homogeneous collection whose species specificity was suggested by their failure to infect laboratory animals. It would appear not unlikely that these organisms led a saprophytic existence in the female genital tract and that, under appropriate conditions, they might give rise to infection in the male. Whether they were responsible for the complicating arthritis and conjunctivitis of the so-called Reiter's disease remained to be seen.

Lt.-Col. R. R. Willcox said that, though he was diffident to enter the discussion, he did feel while listening to Dr. Findlay's paper that the profession might be on the threshold of something big. In the field of venereal disease there were certain conditions associated with rheumatism, such as Reiter's disease and keratitis blennorrhagica, which were laid at the door of the gonococcus with varying degrees of insistence. On occasion it was impossible to prove these as gonococcal in origin, and, indeed, sometimes all the available evidence indicated the opposite. It might well be that pleuropneumonia-like organisms, in symbiosis with, and occasionally without, the gonococcus, were responsible. Reiter's disease was not uncommon in the Army; its course was not influenced by penicillin, and hyperthermy was the best available treatment. Gold salts, however, did benefit, though the treatment by this means was more prolonged. Col. Willcox had recently treated two such cases with gold with satisfactory results. It was noted that, experimentally, the pleuropneumonia-like organisms did not respond to penicillin but did so to gold and streptomycin. Reiter's disease showed similar characteristics in regard to penicillin and gold, and it might well be, if streptomycin should prove effective, that the hypertherm would then be put out of business.

Dr. D. G. ff. Edward said he had no personal experience with pleuropneumonia-like organisms capable of causing arthritis, but he had been interested in the possibility that members of this group might be the cause of diseases, in man and animals, which were at present of unknown aetiology. A number of observations suggested that present methods might be very imperfect for isolating some members of the group. Recently, at the suggestion of veterinary colleagues, Dr. Edward had examined some cervical discharges from a herd of cows with a high incidence of infertility. Two cows yielded primary cultures of what he regarded as pleuropneumonia-like organisms, but growth could not be obtained on subculture. Sabin, also, in cultures

* Elected to fill vacancies occasioned by retirement of Drs. Pennington and Patterson.
from minced human tonsils found what he called "X" colonies, resembling pleuropneumonia-like colonies, but incapable of subculture. It was, therefore, possible that organisms of this group occurred which needed for their growth something not present in the media usually employed, but perhaps supplied in sufficient amount by the original inoculum to allow the primary culture only. Dr. Edward had found that the serum agar medium usually employed for growing this group of organisms gave variable results, depending on the batch of serum. Consistently good growth was obtained by adding yeast extract. The pleuropneumonia-like organisms responsible for infectious catarrh in mice failed to give surface colonies in plates in primary culture and needed a semi-solid or fluid medium for isolation. These were all technical points, but Dr. Edward said he mentioned them to suggest that, with our present lack of knowledge and imperfect means for isolating and investigating pleuropneumonia-like organisms, negative cultures did not exclude the possibility that a particular infection was due to a member of the group.

Dr. Mervyn Gordon described some experimental observations carried out with a virus that, when its virulence had developed to the highest degree by passage, was found to manifest a selective pathogenic action on fibrous tissue. This M4 virus of Tulloch, which appeared to be an exceptionally pathogenic strain of vaccinia (or variola), had been isolated by Sobbernheim from smallpox crusts collected from the beds of cases at Dundee and pooled. For its isolation, Sobbernheim used rabbits, and he employed the testicular route.

Dr. Mervyn Gordon said that the fibrositic capacity of M4 virus came to notice accidentally in the following manner. During 1938 a discussion on rheumatism was to take place in the autumn, so an attempt was made to see whether, by repeated injection intravenously, this M4 virus could produce endocarditis in rabbits in the same manner that certain bacteria do—notably streptococci. When M4 virus was tried in this way, however, no endocarditis was observed, but the rabbits developed periarteritis from inflammatory swelling and oedema of the fibrous tissue around the affected joint; especially that forming the supporting framework and sheathing of the muscles, tendons, and groups of blood vessels and nerves. In the local seerofibrous exudate, the M4 virus was present in pure culture and in large quantity, and the cells were chiefly lymphocytes. It was only when the virulence of M4 was at its highest pitch that fibrositis was produced by it (Annals of the Rheumatic Diseases, Vol. 1, January, 1939; and Lancet, May 4, 1946). The interest of these observations lay in the resemblance between the lesions produced by M4 virus experimentally in rabbits and those present in man during rheumatism. In considering the history of our knowledge of rheumatism, Stockman pointed out that Scudamore, who published the first treatise in English on rheumatism in 1827, made a contribution of great value in that he recognized very definitely the true morbid anatomy of rheumatism—that the essential lesion is an inflammation affecting the white fibrous tissues of the body. Scudamore's definition of rheumatism was: "Pain of a peculiar kind, usually attended with inflammatory action affecting the white fibrous textures belonging to muscles and joints, such as tendons, aponeuroses, and ligaments: the synovial membranes of the bursae and tendons; and nerves". The nodes of Heberden and Aschoff appear to be incidents of this general fibrositis. But Stockman, who agreed that these experimental lesions were similar to those present in rheumatism, pointed out that fibrositis can be produced by other factors than the M4 virus. Among these Scudamore, in 1827, instanced variable temperature, direct cold, and moisture.

Dr. Gordon said it might be added that, in an article on acute rheumatism of children, in Vol. 3 of Allbutt's System of Medicine, first edition, 1897, Cheadle figured two sections to illustrate the changes produced—one of a subcutaneous node, the other of a mitral valve. Both showed the same lesion, namely acute fibrositis. Aschoff’s nodes were not described until 1904, but from a study of the beautiful illustrations to his article in these Annals, Vol. 2, July, 1939, and from direct observation, there was little doubt that they originated in the fibrous tissue of the heart as well. Thus in acute rheumatism the main changes in the heart were brought about by a cardiac fibrositis the main effect of which was most evident on its coverings. Ultimately, in prolonged cases of subacute rheumatism, the fibrous tissue might undergo amylloid degeneration.

Erysipelothrix Polyarthritis of Swine

Dr. D. H. Collins then spoke on erysipelas of swine. He described observations on a series of field cases of sporadic arthritis in pigs in which the causative organism frequently proved to be Erysipelothrix rhueoiopathiae, and in which the lesions were found to be a non-suppurative proliferative arthritis of the larger joints of all four limbs. Experimental induction of a similar type of polyarthritis followed the repeated intravenous inoculation of broth cultures of either of two strains of the micro-organism. The arthritis had also been proved to be contagious, young, healthy pigs developing signs of the disease after only a few days of contact with field cases. The disease of the joints was clearly of bacteraemic origin, and its pathological characteristics included synovial proliferation, pannus formation with superficial erosion of articular cartilage, diffuse and focal lymphoid infiltrations in the synovial villi, and progression of the arthritis even after apparent sterilization of the joint cavities and tissues. Other organs were also occasionally involved. Verrucose endocarditis, pericarditis, focal necrosis of myocardium and of liver, and peripheral arteries were seen in some animals. Most of this work had been undertaken before the war with Dr. W. Goldie at Leeds, and had been published (J. Path. Bact., 1940, 50, 323). Dr.
Collins stated that erysipelothrix did not seem to cause arthritis in man. He pointed out certain similarities, on the one hand with the arthritis of rodents caused by pleuropneumonia-like organisms just described by Dr. Findlay, and on the other hand with the rheumatoid type of human arthritis, which he thought, by analogy, must surely be of infective origin.

A short film illustrated the disabilities and signs manifest in the affected animals, and a number of lantern plates showed the gross and microscopical pathological changes.

**Annual Dinner**

The Annual Dinner of the Society was held at the Junior Carlton Club on Friday, Oct. 25. The dinner, marking the tenth anniversary of the Heberden Society and of the Empire Rheumatism Council, was attended by the President of the Royal College of Physicians, Lord Moran, and many distinguished guests, including Lord Horder, Dr. Mervyn Gordon, General Sir Alexander Biggam, Dr. C. H. Andrewes, Dr. Loring Swaim, Dr. G. M. Findlay, and Professor Axel Höjer, Chief Medical Officer to the Swedish Ministry of Health.

After dinner the President, Dr. Buckley, proposed the toast of “The Campaign against Rheumatism”. He said that we were at the beginning of a new phase, of which the first objective was to educate the general practitioner in the recognition of early manifestations of the rheumatic diseases. Professor Davidson, in replying, said that hitherto scientific and clinical work in this group of diseases might have been below the standard required to secure support from the authorities: but he had every confidence in future work to elucidate these problems.

**Rheumatism in Sweden**

On Saturday morning the meeting was concluded with an address by Professor J. Axel Höjer, Chief Medical Officer, Royal Swedish Ministry of Health. This meeting was held in association with the Empire Rheumatism Council, Lord Horder took the Chair, and the Guest of Honour was His Excellency the Swedish Minister, M. B. G. Frytz. It is hoped to publish Dr. Höjer’s address on the organization and work of a rheumatic service in Sweden in the next issue of these Annals.

A vote of thanks to Professor Höjer was proposed by Sir Wilson Jameson, who said that the Ministry of Health in this country would derive great help from the experience and plans in Sweden. He felt that our Ministry could make a big contribution to further progress.

**FELLOWSHIP OF POSTGRADUATE MEDICINE**

**WEEK-END COURSE IN CHRONIC RHEUMATISM**

The Fellowship of Postgraduate Medicine, in association with the University of Bristol, held a successful week-end course in chronic rheumatism at the Royal National Hospital for Rheumatic Diseases, Bath, from Friday, Aug. 23 to Sunday Aug. 25, 1946, inclusive.

On Friday, after a visit to the Spa baths, Dr. P. W. McKeag delivered a clinical lecture on osteo-arthritis. Saturday morning began with a clinical lecture and demonstration on rheumatoid arthritis by Dr. G. D. Kersley. Mr. Charles Kindersley then demonstrated orthopaedic treatment plaster technique, and physical methods of treatment. In the afternoon there were clinical lectures on fibrositis by Dr. J. B. Bennett, on x-ray diagnosis and treatment by Dr. G. D. Steven, and on sciatica by Dr. Lovell Hoffman. On Sunday morning Dr. L. C. Hill delivered a clinical lecture on gout, which was followed by a lecture and demonstration on pathological principles by Dr. Hubert Gibson, and by a clinical lecture on spondylitis by Dr. G. D. Kersley. In the afternoon Dr. L. C. Hill lectured on arthritis due to specific organisms, and Dr. M. H. L. Desmarais on rehabilitation and convalescence in relation to industry and the duties of the welfare officer.
Heberden Society: Annual General Meeting

Ann Rheum Dis 1946 5: 177-179
doi: 10.1136/ard.5.5.177

Updated information and services can be found at:
http://ard.bmj.com/content/5/5/177.citation

These include:

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/