*Lepr. Rev.* (1973) **44**, 44-46

# Abstracts

1. **Surface peptid glycolipid filaments on *Mycobacterium leprae*,** by J. GORDON and R. E. WHITE. *Clin. exp. Immunol.* 1971, **8**, 539-547.

The reticulated network composed of waxy substances, and demonstrated by the special techniques of electron microscopy, is now shown to be composed of biologically active wax-D. Although the diameters of the filaments and their precise disposition may be different for the various mycobacteria examined, and different also for *Myco. leprae* from (human) lepromatous tissue and mycobacteria grown in culture media, there would appear to be some biochemical (and immunological) similarities between the waxes. [The significance of these findings will not be lost on those interested in adjuvant factors and in the immunological importance of cell-wall moities in lipid solvents.]

*S. G. Browne*

2. **Does entrapment neuropathy contribute to nerve damage in leprosy?** by H. SRINVASAN and P. R. NAMASIVAYAM. *Indian J. Med. Res.* 1971, **59**, 1385-1391.

The authors conclude from their examination of 192 male patients suffering from lepromatous leprosy that the occurrence of ulnar-nerve damage was not influenced by the degree of mobility of the nerve, as indicated by the ease with which the nerve above the elbow was displaced when the joint was flexed and extended. On the other hand, there was some evidence of entrapment when the interval between the medial epicondyle and the olecranon process was 25 mm or less with the elbow extended, and when the interval increased by 50 % on flexion of the elbow. Thus, when the possibilities of recurrent or prolonged entrapment existed, the likelihood of damage to the nerve increased.

As a practical consequence of this study, it is suggested that since "high risk" limbs form a small minority, prophylactic extraneural decompression of the ulnar nerve above the elbow is unlikely to benefit the majority of sufferers from lepromatous leprosy.

*S. G. Browne*

3. **Correlation between tuberculin sensitivity after 2 months and 5 years among BCG vaccinated subjects,** by O. HORWITZ and K. BUNCH-CHRISTENSEN. *Bull. Wld Hlth Org.* 1972, **47**, 49-58.

The authors found that allergenic response to BCG vaccination persisted virtually unchanged after 2 months and 5 years in groups of school-children tested with 11 different BCG vaccines prepared by several laboratories from different strains.

*S. G. Browne*

4. **Appearance of acid-fast rods in cultures of *Mycococcus luteus*,** by A. CSILLAG. *Tubercle (Lond.)* 1972, **53**, 221-225.

Mycococci, sometimes referred to as "degraded mycobacteria", grown in nutrient media, eventually after repeated culture produced acid-fast rods, apparently derived from gram-positive

(but not acid-fast) intracellular granules which were liberated when the organisms lysed. By this time (that is, after 14 weeks) the granules had become acid-fast, and after a further 8 to 28 weeks strongly acid-fast, slightly bent, slender rods replaced the granules. These rods were not cultivable in standard media. It was found that repeated subcultivation of the parent mycococcus strain on nutrient agar apparently prevented the subsequent development of acid-fast rods in serum–saline.

*S. G. Browne*

5. **A test for the determination of competency in clearing bacilli in leprosy patients,** by J. CONVIT, J. L. AVILA, M. GOIHMAN and M. E. PINARDI. *Bull. Wld Hlth Org.* 1972, **46**, 821.

By a study of the reaction to the intradermal injection of a high concentration of killed leprosy bacilli ($640 \times 10^6$), the authors conclude that the type of cell and the histological picture that develops after 2 weeks are indicative of the capacity of the body to clear the injected bacilli. The response parallels the production of cell-mediated immunity. It is considered that the test will indicate to the clinician the length of consolidation treatment advisable for patients with indeterminate (bacteriologically negative) leprosy, and which Mitsuda-negative contacts should receive prophylactic assistance before facing *Myco. leprae* challenge.

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6. **Neurofibromatosis and leprosy,** by T. R. Smith. *J. Neurol. Neurosurg., Psychiat.* 1971, **34**, 743-749.

The not infrequent association of von Recklinghausen's disease and leprosy is illustrated by 2 case reports. Both patients had active lepromatous leprosy. *Myco. leprae* were present in enormous numbers in the cells of the neurofibromatous tumours. These cells, thought to be derived from Schwann cells, appeared to offer a preferential nidus for *Myco. leprae.*

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7. **Leprosy today. International leprosy colloquium held at the Forschungsinstitut Borstel, August 26-27, 1970.** Edited by E. FREERKSEN, E. R. LONG and J. H. THUMIN. *Int. J. Lepr.* 1971, **39**, No. 2, Pt 2, 201-691.

During two extremely full days in August, 1970, well over a hundred practising leprologists and research workers met under the auspices of the Borstel Institute for Experimental Biology and Medicine (and with the financial backing of the Deutsches Aussätzigen-Hilfswerk) to listen to a crowded programme of papers on many aspects of leprosy. As Dr J. Kimming observed in his introductory remarks, the work of hearing and considering the communications presented would be more than enough for several weeks. In this special number of the *International Journal of Leprosy,* all the papers given at this Colloquium are published, some of them amplified from the versions that, because of lack of time, were abbreviated in presentation. The excellent illustrations, like the concentrated text, are best appreciated by perusal in printed form. The Herculean task of preparing the scripts for publication was ably shouldered by Dr E. R. Long.

As is inevitable in such a Colloquium, bringing together–as it did–such a wide range of clinical and pathological interests, the papers vary in novelty and in quality. Perhaps the two most useful features of the publication are, first, the presentation in eminently readable form of much of the newer work that is finding its way into a variety of non-leprosy journals (not all of which are available to practising field leprologists), and second, the summaries of recent work by acknowledged authorities.

Rees (p. 201) set the standard and the bias of the Colloquium with a masterly survey of the impact of experimental human leprosy in the mouse on leprosy research in general, summarizing the bases of the advances made possible by this most useful investigative procedure.

Shepard (p. 340) presented a résumé of the application of this technique to the investigation of the mycobacteriostatic activity of drugs. So far, out of 86 compounds tested, no fewer than 49 have been found to possess some activity in the experimental model. Other workers pursue the same lines of investigation, and make available their results with B1912 (a new rimino-phenazine derivative) and Rifampicin (Hilson *et al.*, p. 349; Rosenfeld *et al.*, p. 358).

The papers presented in the sections on Pathology and Bacteriology were generally of high standard, giving evidence of the application of the newer techniques–electron microscope (Job, p. 251; Klingmüller, p. 269), fluorescent microscopy applied to bony lesions (Coutelier, p. 231), and refined histological methods (Carayon, p. 278). One of the most seminal and significant papers–that by Bonicke (p. 328)–is here reported in brief, since the author died shortly after the Symposium. It gave an account of growth of *Myco. leprae* in artificial medium by taking advantage of a simple physical principle that removed accumulated toxic products and metabolites from the nutrient medium.

The section on Experimental Immunology brought to light some interesting work by Gaugas *et al.* (p. 388) on the reversal effect of thymus grafts in mice that had developed a disseminated mycobacteriosis following thymectomy and total body irradiation. Delville (p. 329) was not able to substantiate Beigelman's claim to distinguish between healthy individuals harbouring macrophages that were either able or unable to lyse *Myco. leprae*.

The activities of research workers on the growing edge of immunology are reflected in papers by Waters *et al.* (p. 417), which attempted to elucidate the mechanisms of reactions in leprosy, by Waaler *et al.* (p. 529) on anti-globulin activity in the lesions of leprosy, and by Sagher *et al.* (p. 541).

Nothing very new came out in the sections on medical and surgical treatment, but useful summaries of recent work were presented.

The preliminary findings of the WHO BCG-vaccination trial in Burma presented by Bechelli *et al.* (p. 609) served as a reminder that the last word has by no means been said on this controversial issue.

The 490 pages of this special number (Volume 39, No. 2, Part 2) of the *International Journal of Leprosy* is certainly a work to be read and subsequently dipped into, representing as it does some of the best of the research results in leprosy over the years immediately preceding and including 1970.

*S. G. Browne*