

BOOK REVIEW

Yet another prestigious publication by A. P. is *Gonorrhoea—Epidemiology and Pathogenesis*—F. E. M. S. Symposium No. 2 Edited by F. A. Skinner, P. D. Walkar and H. Smith 1977, XIII pp. 255 Price £ 11-00. (0-12-648055)

It is a collection of papers contributed at a symposium by stalwart scientists of global repute, each an authority on a particular facet of the biology of the gonococcus, the causative agent of gonorrhoea. Blasting the many ancient road blocks in our concept of gonorrhoea and opening up new avenues, the story of the gonococcus is told, piecemeal, but in sequential order. Members of the medical profession will be startled by the sparkling revelations seeing that our knowledge of the gonococcus, has backlogged in the phase of biscuit or bean shaped and dot sized gonococcus!

With the aid of the electron microscope that magnifies microscopic objects upto even 300,000 times,

With the improved culture media for transport, isolation, fermentation and other diagnostic tests,

With advances in immuno fluorescence and immunoelectrophoresis, giving us a specific immunoglobulin besides the normal ones and the indirect immuno fluorescence test and radio immuno assays,

With the discovery of the chimpanzee as now the best available animal model for the study of gonorrhoea,

With the utilisation of the rabbit and the guinea pig for the creation of subcutaneous chambers through implantation of plastic golf balls and/or steel cylinders and

With the human Fallopian Tube Organ Culture, for the N. gon. to live and reproduce, the gonococcus has been researched to achieve two main aims and objectives : first, to find, as per medical microbiology, among the diagnostic tools, a Serological Test for Gonorrhoea that shall be predictive, speedy of performance and reliable from the three points of view of sensitivity, specificity and reproducibility, as currently, the few S. T. Gs. that we have at our disposal, incriminate a fair percentage of celibate men and women!

Second, since it has been a colossal failure to control gonorrhoea with the ever increasing spate of antimicrobials, due to man's increasing development of sensitivity to drugs and microbe's decreasing sensitivity to the same; and gonorrhoea has become pandemic in the well-developed countries of the world as per statistics furnished in the W. H. O. documentation, our salvation from the scourge of gonorrhoea seems to lie in immunising man against gonorrhoea; but in this venture the gonococcus has puzzled researchers as different antigens from various anatomical parts of the gonococcus which again has been reckoned to comprise numerous strains, carry differing antigenicity values.

Is it not a surprise that in this context the gonococcus is described as a cell having a nucleus with D. N. A. threads, ribosomes and multiple granules, all enclosed in a cytoplasmic membrane, a peptidoglycan cover and an outer

membrane, the last, of which belonging to the virulent types I and II, carrying fimbriae, (pili), organelles, that serve to link the microbe with the host's epithelium that is not squamous?

Not in between the columnar epithelium, we are told, but right across the mucosal epithelium, be it of the pharynx, stomach, rectum, fallopian tube, cervix, vagina or the urethra, the microbe is discovered to traverse, reach the sub-epithelial battle fields and wage war with phagocytes of the order of the P. M. Ns. (polymorpho-nuclears), M. N. S. (mono nuclears) - macrophages, lymphocytes and epithelial cells. The microbe liberates a series of-ases whilst the defensive host cell produces equally numerous counter-ases!

The pus electronographs reveal P. M. Ns., possessing phagosomes which become converted into phagolysosomes within which are identifiable gonococci, some recognised as alive and multiplying and others as digested or destroyed. What is it that causes the invading gonococci to ultimately lose and the host cells to gain? The complete answer is in the offing.

Single cells cannot fight, but clumps of them, known as infectious units of gonococci, coated with the host cell residues, resist. Auxo typing and coagglutination carried out with protein-A containing staphylococcus reagent, coated with gonococcal antigen, have been accepted as helpful procedures in typing the strains.

The *Trichomonas vaginalis* in the bargain, has been dubbed a reservoir of gonococci! "London forces" have been conceded!

The book is pregnant with revolutionary concepts of the gonococcus. Surely, if medical practitioners in the country mean not to hibernate in an anachronic outmoded atmosphere but to retrieve the lost ground in the field of the biology of the gonococcus, and to become update in parallel with F. E. MAS., we shall every one of us own the symposium and not only scan, probe and delve into it theoretically but practically strive in collaboration with non-clinical scientists as others have done, to forestall our country from sinking into the sea of symptomless and signless gonorrhoea in the male and the female.

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