EDITORIAL

AIDS RESURRECTS VENEREOLOGY

Venereology, as an independent discipline, has not been accommodated in the scheduled list of subjects for examination, given publicity to, by the Director, National Board of Examinations, in accordance with the guide-lines provided by the President of the Medical Council of India.

Venereology is Dead

This tragedy was anticipated by our revered teacher, Professor RV Rajam, the internationally famed venereologist of India, when he had declared, "Venereology dying, but not venereal diseases", at the annual conference of the Indian Council of Medical Research on the 28th November, 1959 at the MGM College, Indore. Reasons are not far to seek.

Weleander Homes especially established at great cost for reception and institutional management of early infectious infantile congenital syphilis, became defunct when syphilis in Scandinavian countries came under drastic control.

Even so, with the abrupt displacement of the toxic trivalent arsenical, 606, progressively modified to 914, of Ehrilch's dream for evolution of therapia sterilisans magna in 1910 and of the innovation of mapharsen later, the treatment of syphilis, caused by the silent killer, *Treponema pallidum*, with first, penicillin of Sir Alexander Fleming's find, the first anti-microbial, employed for its treponemicidal effect by John Friend Mahoney, surgeon-general of United States Public Health Service, and later with successive spate of broad-spectrum antibiotics, the therapy of early syphilis was a success and syphilis lost its sting. Gonorrhoea the second major VD, earlier helplessly and hopelessly subjected to medicated washouts, was initially successfully treated with Domagk's sulphonamide—Prontosil rubrum, and subsequently with penicillin followed by another series of antibiotics modified to meet the challenge. It came to be realised that the administration of a broad-spectrum antibiotic, be it oxychlor, oxy or plain tetracycline or macrolide or even chloramphenicol controlled not only the two major bacterial venereal diseases but also silenced the three other minor venereal diseases, namely, chancroid, lymphogranuloma venereum and granuloma venereum.

It is emphasised, despite redundancy of repetition, that any broad-spectrum antibiotic, tetracycline, macrolide or chloramphenicol swallowed by the victim of the traditional venereal diseases, captivating the susceptible sexual being, singly or in multiple combinations, in doses of 500 mg given QID for 10 days, at any rate for less than a fortnight and the self same treatment extended to a month in chronic late cases, successfully checks all the 5 VD of the traditional type.

The exigent emergencies usually associated with parenteral administration of antibiotic therapy, did not appear on the therapeutic scene, bearing in mind macrolides are preferred for enceinte women and children below 8 years of age.

The development of hypersensitivity to antibiotics taken by or given to the victims of VD and of the concomitant occurrence of decreasing sensitivity to the self same drugs and

in certain instances the manifestation of absolute insensitivity to the specific drugs, displayed by the respective etiologic bacterial agents, due to production of enzymes of the character of penicillinase have been overcome by a switch over to other non-allergenic equivalents. However, keeping the emergency kit always in readiness, helped to check, in time, the adverse reaction, of the type of anaphylactoid reaction, with adrenaline, corticosteroids and cardio-respiratory stimulants and exhibition of anti-allergic drugs and oxygen.

Recognition of the 5 overt traditional VD (early) as well as of the covert or hidden phase of the same stage and rendering appropriate and adequate health care for each of them have shorn the 5 traditional VD of the inevitable complications and the paradoxic sequelae, justifying one to concede the axiom, "No early VD, no late VD." Antimicrobials employed happenstans by all and sundry, the medical fraternity, inclusive of the modern and ancient of the profession, particularly those of USA and even by the laity in our country, have all worked together cumulatively, to extinguish the fire and fury of the 5 traditional VD.

There, therefore, appeared to be no need today for any, to have to specialise in venereology, for anybody even without having to resort to the minimal preliminary diagnostic expertise, could submit the 5 traditional VD to well charted out and standardised and nationalised formulations of treatment via most often the oral pathway, referred to already supra, could achieve success. The speciality of venereology, has become a generality.

Whilst the old venereologists stood to elate over the 'near conquest' of the 5 traditional VD, the self same VD specialists have been dismayed over the precipitous fall in their income, the wily hit in their belly, causing them to drop out from the state of princedom to that of pauperism.

Most old venereologists, wisely deserted the Ship of STD. A few however, determined to cling to the Ship of STD, come what may, like the captains of the navy and cast anchor; for having little to do and gain, they simply hibernated in deep depression.

All the acquisition of knowledge and experience gained from the revered teacher, Prof RV Rajam seemed to fade into the limbo and/or lie fallow, because the bacterial venereal diseases, sexually transmitted/acquired, were easily banished, true to the pronouncement of yet another revered Professor, Dr R Subramaniam, President of the Physicians Association in Madras that 'VD is vanishing disease'.

The residual venereologists made bold to endure the socio-economic pinch in the hope that better days would some day dawn and confident in the thought that when God made man, (including woman), and the earth, He also made VD, and that once one VD is slain another sprouted out, like the heads of the mythologic Demon Ravana. It is when thus steeped in the atmosphere of deep despondency we observed in succession, the flare, the glare and last, the global blare, of the catastrophic AIDS raising its head above the clinical horizon and giving the worn out old venereologists glimpses of the silver lining from behind the dark clouds, in 1981, when America first startled the world with the disastrous news of the deaths of a cluster of the young in age, due to AIDS.

The Pasteur Institute of Paris, France, then broke the news of the discovery of LAV '(lymphadenopathy associated virus) as the causative agent of AIDS. A little later, USA came out with the tidings of discovery of an identical find and named the agent of AIDS as HTLV-III.

What has come out of the continuing sagacious study since, by the top knotch global scientists gathered under the wings of the WHO with Halfdan Mahler as its Director General, is virtually, the HTLV-III-hijacks the DNA

of the host's lymphocytes and causes the legitimate duties of the DNA to cease; and the virus compels the DNA to produce millions of copies of viral intruder. Replication of the retro HTLV-III and others goes on inside the hijacked T lymphocytes to such an extent that the functions of the normal healthy T lymphocytes are affected. Man's defence is shattered immunologically.

It must be recalled at this juncture that there are eight sub-sets of T lymphocytes in the peripheral blood, of which the T 4 set is the helper lymphocytes and constitutes the defence of man. The cell mediated immunity comes to an end; likewise its influence on humoral immunity over B lymphocytes; both are jeopardized.

The victims of HTLV-III/LAV thus become defenceless, through deficiency of immunity caused by HTLV-III/LAV and are exposed to invasion by any and every opportunistic biologic agent, and depending on the anatomic system involved in the body the AIDS victim reports with a medley of symptoms and signs, pertinent to the affection of the respiratory, the alimentary, the nervous and/or the cutaneous systems in different degrees of intensity, by the respective invasive opportunistic agents; which are a legion but mostly the other viruses like the herpes simplex virus II, the cytomegalovirus, the hepatitis B virus, the Epstein barr virus, protozoa or other parasites; and develop cutaneous malignancy among them.

Most certainly the victims of AIDS die in less than 3-5 years of the onset of AIDS. In summary, it will thus be seen that the victims of AIDS suffer primarily from the effect of HTLV-III/LAV invasion with the destructive impact on T lymphocytes; not overlooking the fact that the viruses also have a predilection to many other living cells in the body, particularly the nerve cells; visceral cells and skin cells, and secondarily, from the invasive effects of the other etiologic agents—the riff raff, namely, the *Pneumocystis carinii; Cryptococcus sproridia, Toxoplasma gondii, Candida albicans,* and even the *Mycobacterium tuberculosis, Salmonella, Nocardia* and so on; and over and above all from the occurrence of malignant neoplasms, specifically, Kaposi's sarcoma.

The ensemble of the whole spectrum of AIDS will therefore constitute the sum total of the spectrum due to T cell involvement and its destruction, and that due to the consequent ravages caused by the multiplicity of opportunistic infections. Therefore, recognition of AIDS in man, woman or child, homosexual or bisexual, the woman partner of the infected and infectious man, the male partner of the infected woman, the offspring of the infectious pregnant woman, haemophiliacs, intravenous drug abusers, the clients who have received blood transfusions or of blood products particularly the factor VIII or the factor IX will be, by screening them for antibodies to HTLV-III/LAV in their biological fluids, particularly blood serum; and the virus has been cultured in semen, cervico-vaginal secretions, breast milk, urine and infected tissues. The viral antigen can also be recognised.

Scientists have developed four different identification tests, namely ELISA, western blot, radio-immuno-assay and immunofluorescence test. But what is of immense and infallible value, is the isolation of the causative virus HTLV-III/LAV and the demonstration of the virion in the electronograph with the aid of the electron microscope and the determination of the coincidental existence of the opportunistic agents in AIDS.

Settling the etiology of first the primary and then of the secondary illnesses observed in AIDS, our strategic management of even a single case will be devoted to attempts at restoration of the lost or reduced immunity and simultaneously destruction of the HTLV-III/LAV and the cells bearing them and concomi-

tantly wage war against the opportunistic agents. We have also to control Kaposi's sarcoma.

The cost of care of a single individual affected with AIDS has been reckoned to be equivalent to what is expended towards the care of a patient with heart transplant.

In the above context, if the picture of AIDS as projected above, is mainly a sexually transmitted disease due to invasion by HTLV-III/LAV, the hitherto bacteriology oriented venereologist becomes misfit; and the old venereologist has to be recuperated, re-vitalised and resurrected and he has at once to weigh anchor of the STD Ship of India and speed away to the several sea ports of excellence of learning, to get enlightened with the updated cellular and molecular biology, hematology, nuclear medicine, immunology, biochemistry, genetics, electron microscopy, fluorescence immunologic technology etc.

To attain and achieve efficiency, sufficiency and proficiency in all the above mentioned disciplines most relevant to virology oriented new venereology, the old venereologist must change the gear and refurbish the laboratory. The old venereology, bacteriology biased, is dead. Long live virology oriented new venereology, conceding all the credit for resurrection of the dead venereology, to the family of HTLV-III/LAV of AIDS. Out of evil cometh good too. Rather than fill old bottles with new wine, it is suggested that new venereology, virology oriented, may be added afresh.

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