News and Notes

CHLAMYDIA CAUSES MANY DISEASES

Chlamydia is being linked to a growing list of diseases. Besides nongonococcal urethritis, Chlamydia infection is responsible for cervicitis and pelvic inflammatory disease in women (the latter sometimes leading to sterility), and epididymitis in men. The organism is also known to cause ear, eye and lung diseases in the newborn infants of infected mothers.

"This may just be the tip of the iceberg. We're just beginning to find out how many diseases Chlamydia is really linked to," says Dr. Leon Smith, director of medicine at the division of infectious diseases at St. Michael's Medical Centre in Newark, New Jersey. U.S.A.

According to Dr. Paul J. Weisner, the director of the venereal disease division of the Centre for Disease Control in Atlanta, between 600,000 and 800,000 males in the U.S. contracted nongonococcal urethritis in 1979, and 35 to 65 per cent of these cases were caused by Chlamydia.

"However, we have no idea what the incidence of infection is among the female and infant populations," he says. Only a small percentage of infected women develop symptoms of disease, and the symptomless cases are often missed. "This makes defining and controlling the spread of infection almost impossible." This poses considerable risk of illness to new borns.

Diagnostic tests to reveal the presence of the microbe are expensive and not widely available even in the U.S. The method used to isolate the organism, which is intermediate between bacteria and viruses in size and complexity, was developed by Dr. Julius Schacter, professor of epidemiology at the University of California, San Francisco. The test takes three days and costs patients US $35.

NASOPHARYNGEAL CA TREATED WITH INTERFERON

The treatment of a middle ear tumour with interferon in a 16-year-old boy from Lanarkshire in the U.K. had been reported.

Now comes a report from Germany of a similar case which the authors suggest indicates a tumour of viral origin.

The case quoted, by workers from Tubingen University and the Max Planck Institute of Biochemistry in Munich, is that of an 11-year-old boy with a lymphoepithelioma of the nasopharynx treated in December 1976 by subtotal resection chemotherapy and irradiation.

A first relapse was treated in mid 1977, again by chemotherapy and irradiation, but in May 1979 while still on chemotherapy he had a second relapse. The tumour had spread into the orbit and the eye and was affecting orientation and speech, causing focal convulsions, and deformity of the ventricles of the brain as seen on brain scan.

"The second relapse despite chemotherapy and after two courses of high-dose radiotherapy made the prognosis gloomy," say the authors, but "the possibility of viral induction of the tumour prompted us to try interferon."

The interferon was supplied by the German company Rentschler and prepared from human fibroblast culture. It was given as intermittent intravenous infusion daily for five weeks, though the doses had to be adjusted by testing the effect of samples of the patient's serum on cell cultures, as there was no worked out dose regimen.

Four weeks after treatment with interferon, the boy's speech was normal, brain scan showed normal ventricles and haryngoscopy and opth-almoscopy revealed no visible tumour. Six months later, there still appeared to be complete remission, with interferon still being given twice weekly.

Interferon is known to exter an antiviral effect and appears also to have a modifying effect on host immune function which may play a part in its anticancer activity.

However, because the cytological culture of a cell line from this boy's lymphoepithelioma was killed by interferon in vitro, there appeared by interferon in vitro, there appeared to be a direct effect on the cells rather than the interferon acting on the immune mechanisms.
Furthermore, levels of Epstein Barr antibody were high at each relapse, again suggesting a viral aetiology.
Similar tumours such as juvenile papilloma of the larynx which is probably virus induced, have responded well to interferon.
Interferon seems to offer a cure for cancers of the head and neck, as well as showing some success in myeloma and osteogenic sarcoma.
However it is expensive (the market value of the Lanarkshire boy's course has been estimated at $720,000) or unobtainable (even to the Shah of Iran).

KIDS AND NARCOTICS: A STARTLING REPORT

Americans are taking more illicit drugs than even. According to two government studies released last week, the increase among young adults between the ages of 18 and 25 has been extraordinarily dramatic. Since 1962, the proportion of this group who have tried marijuana has jumped from 4 per cent to 68 per cent; 40 per cent still smoke it at least occasionally. The number who have taken harder drugs-including cocaine, heroin and agnel dust-has risen from 3 per cent to 33 percent.
The two studies were commissioned by the Department of Health and Human Services. One of the most disturbing findings was the significant rise in drug taking by teen-agers. In the last decade alone, researchers found that experimentation with marijuana and cocaine had doubled among youngsters between the ages of 12 and 17. "The American people in general, and parents in particular, have shown an increasing concern about the rapid rise in illicit drug use over the past few years," said HHS Secretary Patricia R. Harris, "Their concerns are well founded".

TWO KINDS OF LYMPHOCYTIC LEUKAEMIA

Acute lymphocytic leukaemia, once thought to be a fairly homogenous disease, has at least two varieties. This could lead to even better cure rates for an essentially treatable leukaemia, according to cancer researcher Dr. Emil Frei.
Recognition of the T-cell variant has already led to a drug of "exceptional" promise in preliminary studies. The new drug, deoxycoformicin, inhibits a key enzyme in the adenosine metabolic pathway, causing an accumulation of deoxy-adenosine triphosphate which poisons the cell.
The enzyme affected, adenosine deaminase, is elevated in malignant T-cells in diseases such as mycosis fungoides, a T-cell lymphoma affecting the skin. However, Dr. Frei cautioned that the total experience with the drug in these disorders is very small; researchers have been using it for only a few months.