JAUNDICE :

Hazard to Nurses

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BY the time this article goes to the print, jaundice has already taken heavy toll of 500 people in Gujarat including two young doctors and six members of the Nursing and paramedical staff.

Etiology, Signs and Symptoms

It is a disease known since the days of Hippocrates. It is characterised by yellow discolouration of conjunctiva, sclera and urine. Its signs and symptoms are too well known to be enumerated. However, a brief review would not be out of place. A patient has malaise, fever, loss of appetite, nausea, vomitting, tiredness and passes high yellow coloured urine. The patient may recover completely in 3 to 6 weeks or, in some cases, the patient's condition may worsen and go into hepatic coma resulting in death. Virus B hepatitis, i.e. serum hepatitis, also may run a rapid fulminant course resulting in death.

The commonest non-surgical cause of jaundice is viral hepatitis resulting in damage to liver cells and thereby increasing the amount of bile pigment in circulation. There are three types of Hepatitis : Hepatitis-A, Hepatitis-B and Hepatitis Non-A and Non-B.

Hepatitis-A Virus

Hepatitis-A usually spreads by faecal-oral route. Its incubation period is 15 to 45 days. General measures to prevent it include better hygienic and sanitary conditions; providing clean, purified chlorinated water supply; avoiding contamination of water supply through safe disposal of human excreta; checking leakage of water pipelines and sewage pipes; preventing pollution and contamination of food and eatables by enforcing strict cleanliness measures on hotels, restaurants and street vendors and by checking breeding places of mosquitoes and flies. Specific prevention can be provided by administering Immune Serum Globulin (I S G) if given before or within a week of exposure.

Hepatitis-B Virus

Hepatitis-B is mainly found in patient's blood, blood of professional donors or saliva, bile and even semen and is transmitted through the use of inadequately autoclaved syringes, needles and blood transfusion sets. Its incubation period is 60 to 180 days. Here the members of Nursing staff are constantly exposed to dangers of contracting the disease through minor needle punctures, injuries or close contacts especially when they are working with units requiring massive blood transfusion through professional donors, for example, cardiothoracic and haemodialysis units. Also while treating such cases in isolation wards, the infection may be transmitted to the staff through inadequately protected contacts. Its rapid and fulminant course and high motality calls for urgent need to detect it and differentiate it from infective hepatitis, i.e. Hepatitis-A.

Detection of Hepatitis-B and Specific Prophylaxis

At present there is ample evidence for association of Australia Antigen with transmission of Hepatitis B virus infection (serum hepatitis). Detection of Australia Antigen (Hbs Ag), therefore, is of great importance to Nursing profession. It can be done in a well equipped laboratory by using (i) Immuno-Electrophoresis Method and (ii) Immuno-Diffusion Method.

Specific Prophylaxis : Following exposure to blood of a carrier or a patient known to be positive for Hbs Ag (Australia Antigen) for example, by injection prick or injury, Hepatitis-B immuno globulin (HBIG) should be given immediately within 24 hours. Active immunisation with Hepatitis-B vaccine, though attempted by authorities, is prohibitively costly for large scale use. Active immunisation for acute viral Hepatitis-A is not yet available.

General Measures for Preventing Serum Hepatitis or Hepatitis-B

Thorough autoclaving of syringes, needles and blood transfusion sets, (ii) searching suspected cases and professional donors and detecting by above tests and isolating them and providing adequate measures like masks, gowns and gloves to staff members in charge of such isolation wards (iii) checking the insects and mosquitoes as vectors.

Summary

An attempt has been made above to stress the importance of presence of Hepatitis-B virus in the blood of professional donors and patients and it is also emphazised that its detection by laboratory test through its association with Australia Antigen is possible and desirable.

The detection and isolation of such cases and its treatment in isolation ward and protecting the Nursing staff in charge of such wards by administering Hepatitis-B globulin or Hepatitis-B vaccine and providing them with full protective measures like masks, gowns and gloves is the only way to save the precious lives of patients and members of nursing staff.

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