

A Virus Deadlier than HIV

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A VIRUS DEADLIER THAN HIV

Ahead of World Hepatitis Day on Saturday, we find out how lack of awareness and hygiene are responsible for the spread of dangerous hepatitis viruses

By Kavita Devgan

On 16 July, health officials in the US state of Colorado warned 8,000 patients of a Denver-area dentist to get tested for HIV and hepatitis after it was revealed that he reused dirty needles on patients for 12 years between September 1999 and June 2011.

Four months ago, in a small town in Punjab, a 17-year-old girl went for dental surgery, and was advised a routine blood test. The test revealed that she was suffering from hepatitis B. This serious liver infection, her doctor surmised, was possibly due to an injection with an unsafe needle sometime back to treat a recurring fever. "While this girl's diseased state got detected by chance and she could take precautions and get treated timely, there are thousands suffering from the same infection and not even aware of it," says Ashish Bhanot, senior consultant, laparoscopic gastroscopy, gastrointestinal cancers and bariatric surgery, Fortis Hospital, Delhi.

In 2009, 92 people lost their lives at Modasa in Gujarat due to a hepatitis B outbreak, which was attributed to the reuse of needles. Seven hospitals were named in a government investigation. "Recently, in February 2012, more than 1,600 confirmed cases of hepatitis C were reported from Ratia town, Fatehabad district, Haryana—an outbreak blamed primarily on the reuse of syringes and needles by doctors and dentists. Following this incident, the Haryana government launched a massive awareness drive to educate the public as well as medical practitioners about the dangers of unsafe injections," says Dr Bhanot.

Time for action

As we get ready to observe World Hepatitis Day on Saturday (the birth anniversary of Baruch Blumberg, who won the Nobel Prize in 1976 for discovering the hepatitis B virus), the hepatitis situation is dismal. The World Health Organization (WHO) accepts that despite its staggering toll on health, hep-

atitis remains a group of diseases that are largely unknown, undiagnosed and untreated. The WHO website states that an estimated 1.4 million cases of hepatitis A occur annually, an estimated two billion people worldwide have been infected with the hepatitis B virus and 150 million people are chronically infected with the hepatitis C virus. Staggering!

According to WHO, India has 400,000 cases of hepatitis C and about 96,000 die annually of causes related to the hepatitis C infection. India has approximately 1.1 million cases of hepatitis B, with 240,000 annual deaths due to complications associated with hepatitis B. And there are 80 million carriers of the disease. This is roughly 6% of the total population.

According to Ajit Sood, a gastroenterologist at the Dayanand Medical College and Hospital, Ludhiana, and a founder member of the India chapter of Coalition to Eradicate Viral Hepatitis in Asia Pacific (Cevhap; www.cevhap.org), the aim of World Hepatitis Day is to raise awareness about viral hepatitis and deliver improvement in health outcomes for people living with it, particularly hepatitis B and C. "Even though it is a known fact that hepatitis B and C are more communicable than HIV/AIDS, and kill more people, there is lack of awareness about the disease," he says.

A silent disease

The word hepatitis comes from the ancient Greek word *hepar* meaning liver, and the Latin *itis*, which denotes inflammation. Simply defined, hepatitis means injury to the liver caused due to inflammation of the liver cells. "In an age when heart ailments hog print space, people overlook the fact that hepatitis (see *The Hepatitis Guide*) can be contracted easily," says Dr Bhanot. The virus is clandestine in its symptoms, making this a silent disease. Usually, it occurs with limited or no symptoms and if there are symptoms (fever, muscle ache, nausea and fatigue), they mimic those of the common flu. If they last longer

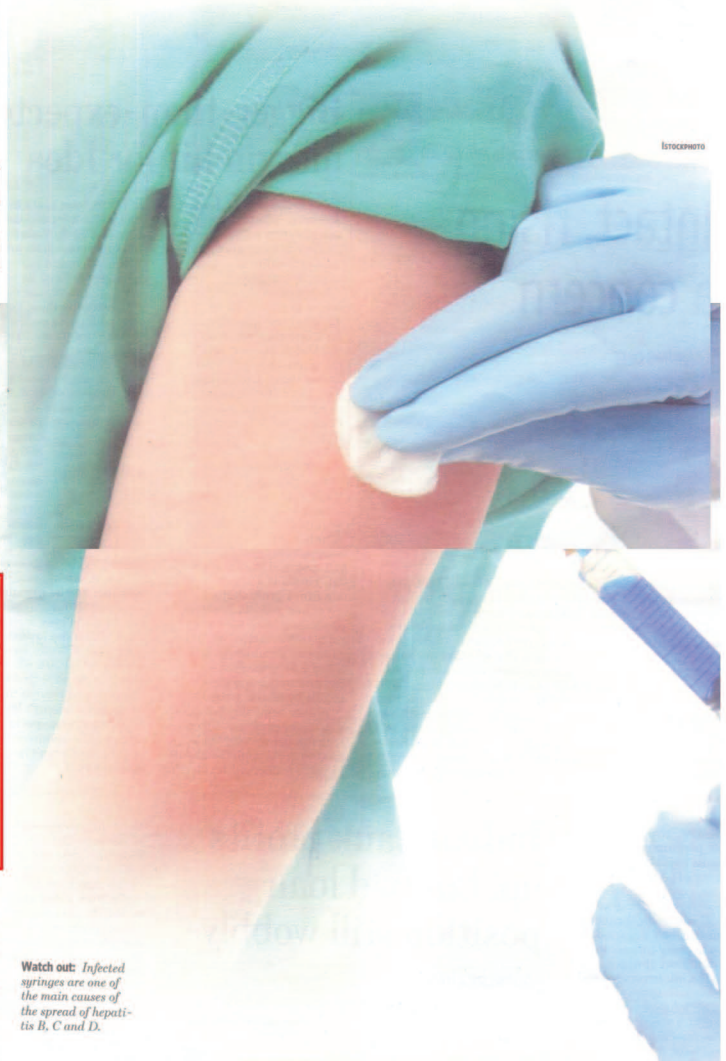
than the regular flu period of five-seven days, check with the doctor for other causes for the fever.

"The acute illness, however, causes liver inflammation, vomiting and jaundice. Chronic hepatitis B may eventually cause cirrhosis and liver cancer. The infection (hepatitis B) is preventable by vaccination (WHO recommends that all infants receive the hepatitis B vaccine)," says Anil Nayak, director and co-founder, Kartavya Healthcare, Mumbai, an organization that works in the field of spreading awareness and education about hepatitis B. They have been able to screen approximately 300,000 high-risk people for their hepatitis B programme in 18 months through camps and community programmes across India.

Unsafe practices

"As treatment is very expensive, widespread awareness and stringent enforcement are essential to prevent deadly periodic outbreaks of hepatitis B and hepatitis C, and to keep the disease at bay. In India unsafe injection practices and the reuse of needles is a major cause of concern, so it is imperative to spread awareness among medical practitioners, patients and the public at large and also back information with strict enforcement of norms," Dr Bhanot says. WHO estimates that globally about 1.3 million people die of infections caused by the reuse of syringes every year; an estimated 300,000 of that are in India.

A landmark study, *Assessment of Injection Practices in India—An IndiaCLEN (Clinical Epidemiology Network) Program Evaluation Network Study*—presented at a conference in Mumbai in 2005, indicated that 62% of all injections in the country were unsafe, having been administered incorrectly, or "had the potential" to transmit blood-borne viruses such as HIV, hepatitis B or hepatitis C either because a glass syringe was improperly sterilized or a disposable plastic one was reused. In 2001, the government mandated the use of auto-disable syringes for immunization to ensure these were not reused. But the real



Watch out: Infected syringes are one of the main causes of the spread of hepatitis B, C and D.

danger arises from the reuse of syringes through injections administered for therapeutic reasons.

As a sizeable percentage of transmission is caused by infected needles and syringes, the only way to be certain about syringe quality is to ensure that a reuse prevention (RUP) syringe is used for every injection and there is dissemination of information about the disease. The Indian Academy of Pediatrics (IAP) came out with a *Guidebook on Safe Injection Practices* in May. The manual provides guidelines for safe injections and prevention of infection in healthcare settings in India. "If I have to give out one message for control of this dreaded disease I would say, let's say no to untested blood and reusable needles and syringes," says Dr Sood.

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THE HEPATITIS GUIDE

There are five main hepatitis viruses: A, B, C, D and E.

Hepatitis A: It is caused by eating food or water infected with the hepatitis A virus (HAV). Sometimes anal-oral contact during sex can also lead to it. It is completely curable and the vast majority of patients recover spontaneously with certain precautions, like abstinence from alcohol.

Hepatitis B, C and D: B is caused by the virus HBV. C is caused by the virus HCV, and D by the virus HDV. The liver of the infected person swells up and there can be serious liver damage. Infection is through contact with infected blood, unprotected sex, and perforation of the skin with infected needles (used to inject drugs, steroids, medicines or immunization). B and C are chronic in nature (very long term or life-

long, even fatal in some cases, which is why donated blood is always tested for these. Patients with hepatitis B and C need to rest and have a diet that is high in protein and carbohydrates to help repair damaged liver cells; sometimes antiviral medicines are also prescribed. There is no effective treatment available for D.

For hepatitis B, vaccination is the best protection. Three shots are given, usually over a period of six months; the vaccine has been available since 1982. There is no vaccine available for C.

Hepatitis E: A person can become infected by drinking water that contains HEV (the hepatitis E virus). The liver swells but there are no long-term consequences.