Hepatitis C: time to wake up

Like HIV, hepatitis C can be deadly; unlike HIV, it is already widespread among British injectors

JUST AS PREDICTIONS for HIV are being scaled down and inertia and complacency are setting in, another virus infection has raised its head. Hepatitis C is a virus transmitted in basically the same way as HIV. Like HIV disease, there is a long latent period before chronic disease surfaces, which can have very serious consequences. Unlike HIV, hepatitis C already has a high prevalence among injecting drug users.

Hepatitis C has been described as a "sleeping giant".[1] It has only been possible to test for this virus since 1989 when an antibody test was developed.[2] Before this, diagnosis had been simply a process of exclusion. Hepatitis viruses that were not hepatitis A or B, cytomegalovirus or Epstein-Barr virus, were lumped together as 'non-A, non-B hepatitis'. Now we know there are several different viruses in this group, including hepatitis C.

Infection control

Widespread testing for hepatitis C can have an impact on drug services as dramatic as that seen in Edinburgh in the mid 1980s when HIV first appeared in numbers. Our drug service in West Suffolk has experienced at least a 30 per cent increase in counselling workload involving people who have tested positive, and a fourfold increase in needle exchange take-up.

The amount of distress felt by those seropositive for hepatitis C, and the implications for childbearing, life insurance, and sexual partners, are very similar to those associated with HIV. If (as appears likely) most injecting drug users in the UK are infected with hepatitis C, the long-term consequences – for the individuals, for their families, the health service, and for the nation – will be staggering. There is a strong case for pre- and post-test counselling for hepatitis C and an urgent need for all drug workers to be fully conversant with the effects of the virus. This in turn has implications for the staffing and training needs of drug services.

Preventing the spread of HIV and of hepatitis C each call for the same sort of measures (although advice on syringe cleaning needs review), underlining the importance of continuing to expand this kind of work.

In the UK, injecting drug users are probably the largest high-risk group. Injecting drug use has only taken off in the UK since the 1960s, contributing very significantly to a rapid increase in the prevalence of this virus; the consequences are only now beginning to emerge.

The consequences of widespread hepatitis C infection among drug injectors could be staggering

Sexual spread of hepatitis C to the wider population – once disputed – clearly does occur, although substantially less often than with hepatitis B or HIV. However, hepatitis C is more easily spread sexually if the individual is *also* infected with hepatitis B or HIV.[3] Transmission also occurs from mother to foetus. This was thought to occur only occasionally but a recent study using sophisticated testing procedures showed that 8 out of 10 babies born to seropositive mothers were harbouring the virus.[4]

Hepatitis C is similar to HIV in that the body's antibodies do not seem to neutralise the virus or prevent it multiplying. Infection may persist in virtually all those infected with the virus, even if there is no liver disease.[5] A positive antibody test for hepatitis B implies immunity against that virus. In contrast, for hepatitis C (like HIV) a positive antibody test implies persisting infection, possible progressive deterioration and a continuing risk of infecting others.

Positive antibody tests are common in injecting drug users. Studies have shown a 57 per cent infection rate in suburban New York, 74 per cent in Amsterdam, 48 per cent in Munich, 70 per cent in Spain, 86 per cent in New South Wales, 70 per cent in Italy, 85 per cent in Baltimore, and 80 per cent in Sweden. Preliminary figures from the UK are similar – 85 per cent in Glasgow[6] and 61 per cent in West Suffolk.

Diagnosis

Chronic hepatitis C from injecting drug use is not so easy to define as in 90 per cent of cases there is no jaundice. Most people feel a bit run down – but among drug users this is not unusual. Until testing became widely available, transfusions were thought to be the commonest cause of hepatitis C infection. We now know this to be untrue; injecting drug users have now joined haemophiliacs as the highest risk groups.

Antibody testing has been refined with two improved second generation tests commercially available, ELISA and RIBA. The lengthy window period of up to nine months before the body produces antibodies (see chart) means that many infections may be missed in the early stages. With the amount of blood transferred in injecting

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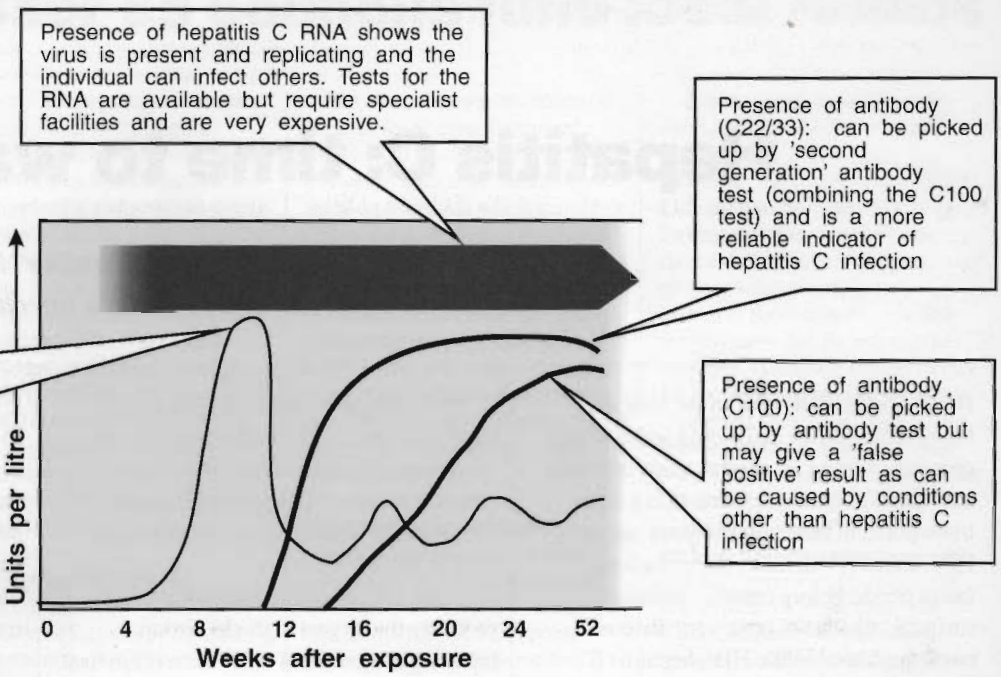
As many as half the drug injectors in Britain may be infected with hepatitis C, a virus which can lead to cirrhosis and fatal liver cancer. Treatment is successful in only a minority of cases. As with HIV, the body's antibodies do not neutralise the virus and those infected with it can continue to transfer it to others via shared injecting equipment, unsafe sex or from mother to baby. Extra funds are urgently needed to help services cope with prevention and treatment.

drug use being so small, often 0.1ml, reaction to infection is often mild and may readily be dismissed as a few days feeling rough after a 'dirty hit'.

As most people with hepatitis C do not have symptoms, the disease can easily be overlooked. Recognition of risk behaviour is the important factor. Among injecting drug users, hepatitis C, like HIV, is a behaviourally related infection. Antibody testing should be available to all clients believed to be at risk, though tests done in the acute phase (first two to three months after infection) are likely to prove negative.

Chronic hepatitis C: course of the disease



If a patient is within a risk group but the initial test is negative, the best option is a repeat test a year after the patient was last exposed to the risk of infection. This applies whether or not the client shows symptoms of infection.

Viral timebomb

Post-transfusion hepatitis has now been shown to be caused almost exclusively by hepatitis C.[7] Because hepatitis following blood transfusion has been studied for more than 20 years, the disease processes for hepatitis C are well known, despite the recent discovery of the virus. However, during transfusions much more of the virus enters the body than when injecting equipment is shared; how far the consequence of receiving a pint of infected blood can predict the consequence of receiving less than 1ml is unclear.

Surprisingly, there is some evidence that sporadic cases of hepatitis C for which no cause has been identified, and where the volume of infected blood must have been small, have a worse outlook than those infected by transfusion.[8]

For a long time it was thought that chronic *persistent* hepatitis (liver enzymes normal or only sporadically elevated) was a benign condition – as opposed to chronic *active* hepatitis (enzymes persistently elevated), which was known to be a serious progressive disease. We now know that chronic persistent hepatitis commonly progresses on to liver failure and cirrhosis and is far from benign.

Often there is a long latent phase during which those with chronic hepatitis C feel well and before serious complications arise. Studies of post-transfusion hepatitis suggest this period is commonly 20-25 years for cirrhosis and 30 years for cancer of the liver,[9] though there have been several cases of cirrhosis occurring within a year of infection.

The higher the level of liver enzymes, the more likely it is that the infected person will be showing symptoms of the disease. Most drug users with chronic hepatitis C start with normal or near normal levels. One study of injectors with chronic hepatitis C showed that after 43 months, 39 per cent showed signs of chronic active hepatitis, 15 per cent signs of early cirrhosis, and 3 per cent full-blown cirrhosis.[10]

Time will clarify what proportion of drug users with hepatitis C will suffer cirrhosis and cancer of the liver after 20 or 30 years. All we can say now is that some will develop these very serious and sometimes life-threatening conditions. A few can improve, most slowly deteriorate. Unhealthy lifestyle, heavy drinking, continued injection of high levels of street drugs, use of unsterile injecting equipment, infection with hepatitis B or HIV, or repeated infection with hepatitis C, may all worsen the outlook.

Treatment

Treatment may be needed to prevent progressive deterioration during chronic hepatitis and to limit advancement to cirrhosis or liver cancer. (Treatment of acute hepatitis C is currently under evaluation.

The drug interferon alfa gives remission in 50 per cent of cases, though 50 per cent of these will go on to relapse.[11] A 25 per cent prolonged remission rate for a life-threatening condition is very acceptable, even though the treatment is expensive (£60 per week) and consists of three injections weekly for at least six months and perhaps for a year.

In a recent study, nearly two-thirds of a sample of 97 patients infected with hepatitis C in the community went on to develop chronic hepatitis.[12] With hepatitis B, 5 per

1. Alter M.J. "Hepatitis C: a sleeping giant?" *American Journal of Medicine*: 1991, *91*(3B), p.112S-115S.
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3. Eyster M.E. *et al.* "Heterosexual co-transmission of hepatitis C virus (HCV) and human immunodeficiency viruses (HIV)." *Annals of Internal Medicine*: 1991, *115*(10), p.764-8.
4. Thaler M.M. *et al.* "Vertical transmission of hepatitis C virus." *Lancet*: 1991, *338*, p.17-18.
5. Alter M.J. *et al.* "The natural history of community-acquired hepatitis C in the United States." New England Journal of Medicine: 1992, *327*(27), p. 1899-1905.
6. Personal communication from Dr D. Kennedy.
7. Aach R.D. *et al.* "Hepatitis C virus infection in post-transfusion hepatitis. An analysis with first-and-second generation assays." *New England Journal of Medicine*: 1991, *325*(19), p.1325-9.
8. Hopf U. *et al.* "Long-term follow-up of post-transfusion and sporadic chronic hepatitis non-A, non-B and frequency of circulating antibodies to hepatitis C virus (HCV)." *Journal of Hepatology*: 1990, *10*, p.69-76.
9. Kiyosawa K. *et al.* "Interrelationship of blood transfusion, non-A, non-B hepatitis and hepatocellular carcinoma: analysis by detection of antibody to hepatitis C virus." *Hepatology*: 1990, *12*, p.671-675.
10. Mattsson L. *et al.* "Chronic non-A, non-B hepatitis developed after transfusions, illicit self-injections or sporadically. Outcome during long-term follow-up – a comparison." *Liver*: 1989, *9*, p.120-127.
11. Davis G.L. *et al.* "Treatment of chronic hepatitis with recombinant interferon alfa – a multi-center, randomised, controlled trial." *New England Journal of Medicine*: 1989, *321*, p.1501-1506.
12. Alter M.J. *et al.* 1992, op cit.
13. Furata S. *et al.* "Anti-HCV antibody in non-A, non-B hepatitis in Japan." *Abstract of Joint Meeting of the Tenth US-Japan Hepatitis Panels*: 1988, p.31.
14. Nishioka K. "Hepatitis C virus antibody and hepatocellular carcinoma." *Update*: *4*(1), p.2-3.

cent of those who show symptoms after the infection progress to chronic hepatitis; in contrast, over 80 per cent of those showing symptoms after a blood transfusion infected with hepatitis C go on to develop chronic hepatitis.[13]

There is no evidence that hepatitis C causes acute fulminant liver failure – a rare but often fatal condition. But research suggests that the incidence of liver cancer with chronic hepatitis C is four times higher than for hepatitis B.[14] Alcohol, particularly in excess, promotes cancer of the liver, so all those who have tested positive for hepatitis C should be warned about drinking.

INJECTING DRUG USERS or ex-users are unlikely to mount the same political lobby for funding hepatitis C prevention and treatment that the gay and heterosexual community have mounted for HIV. Without additional direct monies from central government, district health authorities and fundholding GPs will probably be unable to meet the costs involved. Yet not to do so will lead to a longer term cost that is considerably greater, both in terms of finance and human suffering. It may be wise to let sleeping dogs lie, but not sleeping giants. ■

CONNECTIONS

HELP A TELEPHONE HELPLINE

I'm currently setting up a telephone helpline service (using volunteers) for young people. Any information/ideas/advice that may be relevant to this project would be most welcome.

Contact: *June Brassington, Helpline Coordinator, Trafford Community Drug Team, Chapel Road, Sale, Cheshire M33 1FD, phone 061 962 8810.*

HARM MINIMISATION EDUCATION FOR THE YOUNG

We are gathering information, ideas, statistics, policies, training materials – anything related to drug education oriented towards harm minimisation and young people. If you have any items that could be of use we would be pleased to hear from you.

Contact: *Julie Douthwaite/Hilary Nicholas, Clwyd Centre for Health Promotion, Bromfield House, Queen's Lane, Mold, Clwyd CH7 1XB, phone 0352 755543.*

MUTUAL SUPPORT FORUM FOR S.E. HARM REDUCTION WORKERS

The Regional Harm Reduction Workers Forum – South East has been meeting since 1990. The forum is for workers engaged in syringe exchange/HIV and drugs work, along the lines of harm reduction.
Its aims are:

- To exchange information so workers can keep abreast of current thinking and ideas.
- To provide support for workers so that they are less isolated.
- To influence policy development.
- To promote a more positive awareness of harm reduction work.

A wide variety of people attend the forum from outreach workers to HIV coordinators.

The forum covers topics at members request. Free training days have been devoted to subjects such as: complications of injecting; legalities; alternative therapies; and childcare issues.

More recently members have been involved in the development of the first set of regional guidelines on harm reduction work.

The group meets quarterly and membership is free to agencies – either voluntary or statutory – from the South East Thames Region.

Anyone interested in joining can contact me at the address below.

Contact: *Carol Salter, '38' Drug Advice Centre, Ramsgate on Thanet, phone 0843 596638.*

SHARE IDEAS/EXPERIENCE OF PEER EDUCATION

Cascade is a peer education project working across the borough of Solihull, providing young people with the information they need about substances. We started work in January and have funding for three years. We aim to train a core of volunteers from schools, youth clubs and other places to act as peer educators in these settings.

We would like to make links with groups who have done work in this area and would welcome advice and/or information and the chance to share experiences.

Contact: *Helen Thompson (Development Worker), Cascade Peer Education Project, Keepers Lodge, Chelmsley Road, Chelmsley Wood, Solihull B37 7UA, phone 021 788 3436.*

LIAISON WITH ACCIDENT & EMERGENCY DEPARTMENTS

I am developing a liaison service with one of the city's large accident and emergency departments. I would be grateful for information regarding any such projects undertaken across the country.

Contact: *Jo-anne Hardman, Northern Regional Drug & Alcohol Service, Plummer Court, Carliol Place, Newcastle upon Tyne NE1 6UR, phone 091 230 1300.*