Heroin Abuse with Hepatitis B Virus Associated Chronic Active Hepatitis in a Twelve-year-old Child

A Non-fictitious Pulitzer Prize

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A case report in the *Washington Post* in 1980, portraying a nine-year-old drug abuser[1], caught public imagination and led to the author being awarded the Pulitzer Prize for Journalism. The report, however, proved to be fictitious and the prize was returned. We report here a non-fictitious case of a young drug abuser who commenced parenteral abuse before his eleventh birthday, and developed hepatitis B virus (HBV) associated chronic active hepatitis as a consequence. This case highlights a number of unique problems associated with drug abuse in childhood.

Case Report

A twelve-year-old boy was brought to the Casualty Department of the Charitable Infirmary by his father, in January 1981. A neighbour had informed the patient's father that his son was known to be abusing drugs. The boy was confronted and made no effort to deny the accusation. He was referred to the Drug Advisory and Treatment Centre.

During interview, the patient kept his head down for much of the time, biting his already bitten nails. Initially, he appeared shy and nervous but became angry on questioning. He gave a detailed history of parenteral drug abuse for 18 months. Diconal (dipipanone hydrochloride and cyclizine hydrochloride), Palfium (dextromoramide), cocaine and heroin were the drugs he used. He admitted to sharing syringes with other drug abusers.

On enquiring, it was determined that the patient was the third eldest of ten children. His older brother and sister were not involved in drug taking. His father had been unemployed for the previous two years, his mother suffered from a neurotic disorder with strong agrophobic symptoms. The patient tended to mix with boys older than himself. He had presented with behavioural problems at seven years of age and had been attending a special school for two years. He was found to have a full-scale I.Q. of 85 on the Wechsler Intelligence Scale for children, and a normal E.E.G. By the end of 1980, he was on probation and awaiting a Court appearance following an attempt to break into a car.

On examination, he had tattoos and skin markings compatible with intravenous injections. His liver was enlarged, soft and tender. He had no other stigmata of liver disease and the remainder of the examination was unremarkable. It had been decided, initially, to manage this patient's drug problem on an out-patient basis because of his age; but, three months after presentation, he became unwell and developed anorexia, nausea and jaundice. He was then admitted to hospital.

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Laboratory investigations included the following: serum bilirubin 294 μmol/1 (N = 5-17), serum glutamic pyruvate transaminase 2550 mU/1 (N = 11-50), alkaline phosphatase 286 U/l (N = 25-85), serum proteins and albumin were normal. Pro-thrombin time was prolonged and hepatitis B e antibody was positive.

Ten days after admission he developed an itchy maculopapular rash over his trunk, arms and legs. He was apyrexial and had no lymphadenopathy. The rash faded after five days. When his prothrombin time had returned to within the normal range, liver biopsy was performed. This showed chronic active hepatitis with cirrhosis. He was commenced on sulphasalazine 1 gram three times daily[2]. His jaundice cleared and his liver function tests returned to near normal levels. Following six months: therapy, repeat liver biopsy confirmed chronic active hepatitis with cirrhosis. The patient remains clinically well and biochemical tests have now returned to normal.

Discussion

This case report highlights a number of problems associated with drug abuse. Whilst it is generally accepted that the age at which abuse commences is decreasing, this appears to be the first recorded case of a child who commenced intravenous abusing before his eleventh birthday. If this trend continues, it is likely that many similar cases will be seen in the future.

The association between parenteral drug abuse and chronic liver disease is well documented[3-5] and is demonstrated once again in this patient. His extreme youth makes this particularly unfortunate.

The skin lesions present in this case are typical of those seen on occasions in patients with HBV associated hepatitis and are due to immune complex deposition[6,7]. They are readily differentiated from infantile papular acrodermatitis (also due to immune complex deposition) by the age of the patient, the distribution of the rash and the absence of lymphadenopathy which occurs in the full-blown Gianotti-Crosti Syndrome[8]. It is likely that these skin manifestations are variants on a common theme.

Hospitalisation and subsequent placement of the very young offender with drug problems presents special difficulties. Lengthy discussions between the Departments of Health and Justice, as to whose responsibility rehabilitation should be, is likely to follow completion of treatment. In this instance, the patient was eventually placed in a secure setting for further education, supervision and rehabilitation. Simple withdrawal from drugs without such a programme is unsatisfactory, especially in the younger patient with an, as yet, poorly developed personality and sense of identity.

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