ANTI-VIRAL THERAPY

The aim is to eradicate the virus, improve liver function and reduce infectivity. Anti-viral therapy would clearly be the most satisfactory approach. Unfortunately, at the present time, no effective, inexpensive, anti-viral agent is available.

Interferons are small glycoproteins able to inhibit replication of a wide range of animal viruses. Two different interferons have been described, one produced in leucocytes, the other in fibroblasts. Administration both in man and in the chimpanzee has an inhibiting effect on replication

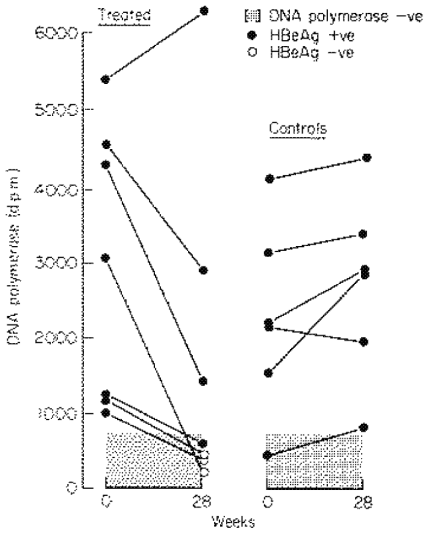

Fig. 277. The effect of arabinoside A on viral DNA polymerase in chronic HBsAg-positive hepatitis (Bassendine *et al* 1980).

of hepatitis B virus. When leucocyte interferon was given for less than two weeks, the changes were transient, but when two patients with chronic active hepatitis were given courses of three or more weeks a marked fall was noted in hepatitis B virus-associated DNA, in DNA polymerase and in core antigen. These improvements were maintained for some weeks after stopping treatment [33]. Human fibroblast interferon has also been used to reduce serum hepatitis B markers and transaminases in chronic active hepatitis [21, 41]. In one patient, fibroblast interferon also stimulated the immune response [22]. These results are promising, but interferons are difficult to prepare, in short supply and very costly. Until they are more readily available, prepared perhaps by genetic manipulation, they will never solve the world-wide problem of the enormous numbers of patients with chronic hepatitis B infection.

Vidarabine (Arabinoside, ARA-A) is produced by fermentation of *Streptomyces antibioticus*. It acts as an analogue of the deoxyribonucleoside of adenine and has significant anti-viral activity *in vitro* against several DNA viruses. Preliminary results in the treatment of chronic HBsAg hepatitis have been promising [8]. In a controlled prospective trial, intravenous ARA-A reduced DNA polymerase in all patients with chronic hepatitis B liver disease (fig. 277) [2]. This indicates reduced viral replication and so less infectivity. In some, the effect was sustained and followed by a significant fall in circulating HBsAg, and in others hepatitis 'e' antigen was lost and anti-HBe developed. However, hepatitis B infection was not eradicated. A fall in serum transaminases was seen in those positive for HBe. ARA-A is easy to prepare and is not costly. An intramuscular preparation given twice daily over many weeks is under trial [72].

Prognosis

Progression is slow and insidious [28]. This is particularly so if the patient is asymptomatic and where the hepatic histology is that of a mild chronic active hepatitis. Such patients, with or without therapy, may go into remission, the histological picture becoming that of chronic persistent hepatitis. This is in contrast to the patients with the 'lupoid' type of chronic active hepatitis where, without therapy, there is a high mortality in the first two years. Once jaundice appears and decompensation (ascites, bleeding varices) is obvious, the outlook is as bad as in other forms of terminal cirrhosis (fig. 274).

Primary liver cancer is a dreaded complication. It should be suspected if the patient deteriorates suddenly with marked fatigue, right-upper quadrant pain, weight loss, oedema of the ankles and ascites (Chapter 28).

CHRONIC NON-A, NON-B HEPATITIS

Serial studies have shown that patients with acute non-A, non-B hepatitis progress to chronic liver disease. This applies to the blood transfusion-related [36], the blood factor-related [67] and the sporadic disease [1]. The incidence of chronicity seems to be about 30–40%.