Albendazolc Therapy in Liver Hydatidosis

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No satisfactory therapy for inoperable multiple hydatid disease was available till Heath *et al.(l)* demonstrated the effect of mebendazole in experimental hydatid disease. Subsequently, benzimidazoles have been used clinically for multiple, inoperable hydatidosis with encouraging results(2-4). We record our experience with the use of albendazole in a child with inoperable hydatid disease of the liver.

Case Report

A 6-yr-old boy attended that Al Fatah Children's Hospital, Benghazi with acute respiratory infection. Physical examination revealed a firm irregular enlargement of the liver 5 cm below the right costal margin in the midclavicular line. Liver function tests were normal. The indirect hemagglutination antibody test (IHA) for *Ecchinococcus granulosus* was positive in a titer of 1: 1024 and the abdominal ultrasound confirmed the presence of more than 15 cysts, the largest of which was 8 cm x 6 cm in the left lobe.

He was given albendazole 600 mg per day for three weeks. Courses were repeated for nine months with a week's break between the courses. Liver function tests were monitored every two weeks for the first two months and then every month. Abdominal ultrasound was repeated every month for the first six months and then every two months thereafter till one yr after the start of therapy. A followup ultrasound was carried out five yr later. IHA was monitored every two months during the first yr and then at followup after five yr. The child tolerated the drug very well, and the liver* enzymes remained in the normal range. The IHA titer rose to 1: 4096 at two months and thereafter remained stationary at 1: 1024 through the yr. At five yr followup the IHA was negative. The liver size regressed gradually and was not palpable four months after start of therapy.

The ultrasound showed a marked decrease in liver size and the number and size of cysts. An ultrasound done one month after stopping treatment showed a solitary, well-encapsulated 4.5 cm x 2.0 cm cyst in the left lobe. An ultrasound done 4 yr later showed multiple fibrotic scars in both lobes; no active hydatid cyst was seen.

Discussion

Though surgery remains the treatment of choice in hydatid disease, many cases of multiple hydatidosis are inoperable. Mebendazole was found to be lethal to germinal membrane larvae of *E. granulosus*(1).The drug was successfully

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used in human beings(2). However treatment failures were recognised; these may be due to poor absorption of mebendazole(5).

Albendazole, another benzimidazole, which has better absorption(6), has been used recently with good results(3). Morris, *et al.(5)* used the drug for a total period of two months. However, these workers emphasized that shrinkage of cysts in solid organs may be slower and duration of treatment may have to be longer. In a more recent report, Belgian workers treated a patient "having eight cerebral cysts, with albendazole for four months(7). After a year no active cysts remained and all original cysts were calcified.

In the present patient albendazole was given for nine months without any adverse clinical or biochemical effect. The liver cysts regressed gradually and the child was apparently well one month after cessation of therapy. Ultrasound examination of the liver showed no hydatid cyst.

During the course of treatment initially the IHA titer rose and then reduced to original levels. These findings have been recorded previously(2) and are apparently due to an immunological response triggered by release of antigens from the dying cysts. After surgical removal of hydatid cyst the IHA becomes negative in about a yr. In the present patient the IHA was repeated only four years after stopping therapy and was negative.

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