Abstract

Hepatitis B virus (HBV) infection is endemic in Taiwan, with a high frequency in adult. It results in cirrhosis, hepatocellular carcinoma and death. HBV vaccines have been largely shown to be effective in preventing infection of healthy children with an efficacy of > 90%. Taiwan has a national policy about routine infant immunization with HBV vaccine since 1985. The efficacy is very fair. But it remains unclear that the Hepatitis B (HB) vaccine would provide the same effective protection in the children who received chemotherapy and bone marrow transplantation. We do not know whether these children would receive the booster of the HB vaccine or not.

In this study, 44 children with acute lymphoblastic leukemia (ALL) and 1515 healthy children were enrolled. We divided the children into 3 groups by the age : 0-5, 5-10, >10 years old. The result showed that a total of 16 (36%) of the ALL children were seronegative for anti-HBs antibody. There was no significant difference between ALL and healthy children in all 3 age-groups. But the geometric mean titers of anti-HBs antibody in the ALL children were significantly lower than that of age-compatible healthy children. After chemotherapy, the anti-HBs titer of the ALL children at 0,6,16 week after treatment had no significant difference.

Key Word : Hepatitis B . Malignancy . Children . Vaccine