ESCALATED REGIMEN OF HEPATITIS B VACCINE IN CHILDHOOD HEMATOLOGICAL MALIGNANCIES WHILE ON CHEMOTHERAPY

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Abstract. This prospective study was conducted to find the effective vaccination schedule against hepatitis B virus (HBV) infection for children with hematological malignancies. Sixty patients ages 2-15 years old with hematological malignancies on chemotherapy, negative for hepatitis B surface antigen (HBsAg) and never vaccinated for HBV before, were vaccinated with 40 μg of vaccine at 0, 1 and 2 months. Antibody titers were measured 6 weeks after administration of last dose. Out of the 60 children enrolled, 5 died during the course of treatment and 4 dropped out before completion, leaving 51 for final analysis. More than 70% exhibited protective levels of antibodies (>10 mIU/ml) against hepatitis B virus. There were no significant effects of age or sex on the antibody response, although antibodies were higher among girls (90.9%) than boys (65%). Patients with non-Hodgkin's lymphoma were found to exhibit a better antibody response than leukemic children (p = 0.024). Children with hematological cancers should be vaccinated with an escalated regimen of the vaccine.

Key word: hepatitis B virus, vaccination schedule, HBsAg, children, hematological malignancies

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