

Hepatitis B vaccine and murine schistosomiasis

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Statement of the Problem: In tropical countries, the effect of some infections on the immunological response to vaccination regimens should be considered. Schistosomiasis which is a major health problem in these areas, results in a suppressed immune response to a variety of antigens. Conversely, some killed bacteria or viruses have been reported to elicit protective effect against *schistosomal* infection. The aim of the present study was to investigate the influence of *schistosomal* immunosuppression on the antibody response to hepatitis vaccine and to study if the vaccine has any protective effect on experimental *Schistosoma mansoni* infection.

Methodology & Theoretical Orientation: Swiss strain albino mice were vaccinated with hepatitis vaccine at varying intervals in relation to *S. mansoni* infection. Assessment of both; effect of *S. mansoni* infection on the immune response to hepatitis B vaccine and the possible protective effect of the vaccine on *S. mansoni* infection was carried out.

Findings: The present study revealed that *S. mansoni* infection reduced the serum antibody level against hepatitis B vaccine in almost all experimental groups. Parasitological and histopathological findings showed significant protection against *S. mansoni* infection.

Conclusion & Significance: Interrelationship between *Schistosoma* infection and hepatitis B vaccine was related to duration of *Schistosoma* infection. When *Schistosoma* was initiated before or simultaneously with hepatitis B vaccine, the compromising effect of *Schistosoma* predominated while if infection was acquired after immunization the stimulant effect of the vaccine took the upper hand. In order to reduce virus B infections in schistosomiasis endemic areas public health officials should evaluate a policy for regulation of hepatitis B vaccine booster immunization to enhance the population immunity against hepatitis B infection.

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Clinical features of 14 cases of cerebral schistosomiasis in Jiangxi province

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Objective: To discuss the clinical features of cerebral schistosomiasis.

Method: The clinical data of 14 patients with cerebral schistosomiasis from March 2010 to March 2016 were collected and analyzed retrospectively.

Result: The schistosomiasis immunological test of serum and cerebrospinal fluid from these 14 patients were all positive. Eosinophils increased in 10 cases, the percentage was 5.1-60.3%. Schistosomiasis eggs were found in 7 cases by fecal Kato-Katz method. 14 cases were all infected by *Schistosoma japonicum*. 12 cases were diagnosed as chronic type, 2 cases as acute type. 13 cases received medical treatment, of which 12 cases were cured, 1 case improved; 1 case received surgical resection of the lesion.

Conclusion: The clinical manifestations of cerebral schistosomiasis mainly include seizure, headache, dizziness and fever. In the enhanced head magnetic resonance imaging (MRI), the lesions were clustered and merged into lumps, showing a relatively uniform enhancement and the peripheral edema formed a "flame sign", which is the characteristic image of cerebral *Schistosoma japonicum*. The praziquantel treatment can achieve a good prognosis..

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