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# Acute hepatitis B in patients with and without hepatic schistosomiasis "follow up study "

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Hepatitis B infection and schistosomiasis are the most common causes of liver disease in Egypt the association of the two conditions is a common event. While schistosoma mansoni infection does not severely affect hepatocyte function, the presence of hepatitis-B virus infection may lead to chronic active or chronic persistent hepatitis. So the effect of their combination on the morbidity and mortality of the affected population is more than single disease alone. In this work, it was aimed to compare the course and outcome of acute viral hepatitis B alone and with hepatic schistosomiasis. The subjects of our study included 100 patients with acute hepatitis-B which were selected from patients admitted to hospital with a recent onset of acute hepatitis. We selected 50 patients with hepatic schistosomiasis and 50 non-schistosomal patients for our follow up study. We followed them every three months from the start of acute hepatitis-B to the 12th month, clinically, Biochemically and serologically. Our patients were subjected to : 1- Full clinical history including that of schistosomiasis, use of drugs, alcohol intake, parenteral injection and previous attack of jaundice. 2- Full clinical examination. 3- Urine and stool examination. 4- Sigmoidoscopy and rectal biopsy for schistosoma ova. 5- Liver function tests including, serum bilirubin, SGOT, SGPT, alkaline phosphatase and prothrombin activity. 6- HBV markers including, HBSAg, anti-HBS, anti-HBc(IgM), HBe-Ag and delta agent. 7- Liver biopsies for all cases. The age of our patients ranged from 14- 26 years (first group), 27 - 43 years (2nd group) and from 44 - 59 years (third group). The results of our study showed that: 1. Acute hepatitis B tends to affect young age more. 2. The development of pathologic hepatosplenomegaly was significantly higher in schistosomal than in non-schistosomal patients after AHB. 3. The development of ascites was significantly higher in schistosomal than in non-schistosomal hepatic affection after AHB. 4. The liver functions were more bad in schistosomal patients after AHB. 5. The incidence of delta co-infection and delta super-infection was significantly higher in schistosomal patients and inactive schistosomal more than patients with inactive schistosomiasis with male predominance. 6. The liver functions were more affected in patients with delta infection than in those with HBV infection alone. 7. The persistent HBS antigenemia was significantly higher in the schistosomal patients. 8. Persistent HBe-Ag was found to be greater in males than in females. 9. Persistent HBS antigenemia was found to be greater in young patients. 10- Patients with active schistosomiasis when treated by praziquantel showed better clearance of HBSAg. 11-

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Patients with HBV infection alone showed better clearance of HBSAg than those infected with delta agent.12- Schistosomal patients retained e-antigen for longer periods with higher degree of infectivity.13- Bleeding from oesophageal varices was significantly higher in schistosomal patients and patients with delta infection.14- Histopathologic studies showed higher incidence of chronic active hepatitis, chronic persistent hepatitis and cirrhosis in schistosomal patients especially those with persistent HBs-antigenemia and in patients with delta infection than in those with HBV infection alone.15. The mortality was significantly higher in schistosomal patients with delta infection. from the above results of our study we can conclude and recommend the followings:-1- Viral hepatitis B and schistosomiasis constitute a major health problem in our community.2- The clinical and biochemical aspects are worse in schistosomal than in non- schistosomal patients after AHB.3- The incidence of chronic liver diseases is higher in schistosomal than in non- schistosomal patients when infected by HB virus.-113 -4- The concomitant affection by schistosomiasis and HB virus is associated with higher morbidity and mortality than HB virus infection alone.5- schistosomiasis may predispose to delta infection which may be responsible for the higher incidence of variceal bleeding in cases of mixed schistosomiasis and HB virus infection than in pure HBV infection alone.6- Delta infection is associated with a worse outcome and a higher rate of morbidity and mortality.7- Patients with dual infections (HBV and schistosomiasis) are at higher risk in spreading HBV as they act as a reservoir for HBV and are more likely to be HBe-Ag positive.8- The chronicity after AHB being worse in the younger schistosomal males.9- The effective treatment of schistosomiasis ameliorates and improves the course and outcome of both schistosomiasis and HBV.10- HB vaccine should be given in a large scale and until become available, it should be given to the risky populations where younger schistosomal males included.11- Every efforts should be done in the prophylactic and therapeutic programs against schistosomiasis and viral hepatitis.