

Cross-Reactivity of *Schistosoma mansoni*-*Fasciola gigantica* Influenced by Saponins

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The aim of the present work was to investigate the *Schistosoma mansoni* and *Fasciola gigantica* cross-reactivity between adult worms and egg homogenates of the parasites. Immunoprophylactic effects of crude *Schistosoma mansoni* worms and egg antigens mixed with or without saponins extracted from *Atriplex nummularia* were studied followed by challenge with 80 cercariae of *Schistosoma mansoni*. Our results showed that post 1st immunization with schistosome egg antigens (SEA) there was a significant change ($P = 0.05$) in the IgM levels against *Fasciola* egg homogenate (FgEH) without saponins. Post 2nd immunization with SEA mixed with saponins the levels of IgM increased significantly ($P = 0.05$) against *Fasciola* worm homogenate (FgWH) as compared with a non-immunized group. Post 2nd immunization the level of IgG was significantly elevated ($P = 0.05$) by SEA mixed with saponins against FgWH. Post 2nd immunizations with SEA mixed with saponins showed a significant change ($P = 0.05$) in IgG levels against FgEH. These results clearly demonstrated that there is a cross-reactivity between *Schistosoma mansoni* eggs and *Fasciola gigantica* worms and eggs. Saponins were found to be immunostimulatory adjuvants in our study.

Key words: *Schistosoma mansoni*, *Fasciola gigantica*, *Atriplex nummularia*