

论著

日本血吸虫门脉内童虫表膜抗原组分及其保护性免疫力研究

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收稿日期 修回日期 网络版发布日期 接受日期

摘要

目的探讨日本血吸虫门脉内童虫表膜抗原(SjHmAg)的免疫特性,观察其抗日本血吸虫(Sj)的保护效果。方法用SDS-PAGE电泳技术分析SjHmAg蛋白组分,酶联免疫电转移印迹(EITB)分析感染兔血清(IRS)和正常兔血清(NRS)对SjHmAg的识别;用完整SjHmAg免疫昆明鼠3次,分别在0、2、4周进行,第6周每鼠经腹部感染 40 ± 1 条Sj尾蚴,42天后剖杀,计数虫数及肝卵数。结果用SDS-PAGE电泳获得SjHmAg主带7条,IRS主要能识别SjHmAg23、33和63kDa等10个抗原组分;间接ELISA测其抗体滴度 $>1:6400$,与对照组相比,SjHmAg免疫小鼠的减虫率为16.2%,减卵率为55.4%。结论用SDS-PAGE获得了不同分子量的SjHmAg蛋白,EITB鉴别出具有免疫活性的蛋白分子,且SjHmAg对Sj攻击感染及雌虫生殖似有一定的抗性。

关键词 [日本血吸虫](#) [门脉内童虫](#) [表膜抗原](#) [免疫](#) [保护力](#)

分类号

Studies on Fractionation and Protective Immunity of the Membrane Antigen from Hepato-portal Juveniles of Schistosoma japonicum

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Abstract

Objective To explore the immunological characteristics of the membrane antigen from hepato-portal juveniles of Schistosoma japonicum and its protective immunity against S. japonicum (Sj) in mice. Methods Sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE) and enzyme-linked immune electro-transfer blot (EITB) methods were used to recognize the membrane antigens from hepato-portal schistosomula (SjHmAg) by infected rabbit sera (IRS) and normal rabbit sera (MRS). Kunming mice were immunized subcutaneously three times (0, 2, 4 weeks) with SjHmAg. Each mouse was challenged with 40 ± 1 cercariae. Six weeks later the mice were killed, worms and liver eggs were counted. Results 7 major protein bands appeared on SDS-PAGE. IRS mainly reacted specifically with SjHmAg of 23, 33 and 63 kDa. Compared with the control groups, the reduction rate of worms and eggs per gram liver in the experimental group were 16.2% and 54.4%, respectively. Conclusion Different protein components from SjHmAg are obtained using SDS-PAGE, and the antigen can induce a protective immunity against Sj in mice.

Key words [Schistosoma japonicum](#) [hepato-portal schistosomula](#) [membrane antigen](#) [immunity](#) [protection](#)

DOI:

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