



 **Current Issue**

 **Browse Issues**

 **Search**



 **About this Journal**

 **Instruction to Authors**

 **Online Submission**

 **Subscription**

 **Contact Us**



 **RSS Feed**

Acta Medica Iranica

2009;47(4) : 20-28

HETEROLOGOUS IMMUNITY STUDIES IN CALVES IN IRAN

J. Massoud

Abstract:

In a series of heterologous immunity studies *S. haematobium*, *S. bovis* and *O. turkestanicum* in calves, a large number of *S. haematobium* cercariae (21,000 cercariae) were used repeatedly as the immunization agent. At autopsy, 22 weeks after initial exposure, immature *S. haematobium* was detected. Thirteen weeks after initial exposure a group of calves was challenged with *S. bovis* and another group with *O. turkestanicum* cercariae. The result of this investigation showed that the calves had developed limited *S. haematobium* infections. The number of worms recovered by perfusion varied from 250 to 640 (378 ± 99) and the mean percentage of worms recovered was 1.8%. Most of the worms were found in the portal veins, but in one calf some larger worms were detected in the lower mesenteric veins of the large intestine with some reformatted eggs in the caecum substances. No worms or eggs were found in the vesicle plexus or bladder tissue. The immune response which developed in calves with *S. haematobium* infection was considerable. The protective effects of immunity were measured by detecting the effects on the expected worm burden and tissue egg counts of the challenge infection compared with the control group. It was found that the mean reduction of worm recovery and tissue egg counts was 42.3% and 62.2% in group *S. haematobium* versus *S. bovis*, and 31.4% and 81.0% in group *S. haematobium* versus *O. turkestanicum* infection. This suggests that the immune phenomenon will occur in endemic areas like Khuzestan, Iran, and that under natural conditions this might reduce the severity of the disease in livestock.

Keywords:

[Heterologous immunity](#) , [S. haematobium](#) , [S. bovis](#) , [O. turkestanicum](#)

TUMS ID: 1802

Full Text HTML  Full Text PDF  468 kB

top ▲

[Home](#) - [About](#) - [Contact Us](#)

TUMS E. Journals 2004-2009
Central Library & Documents Center
Tehran University of Medical Sciences

Best view with Internet Explorer 6 or Later at 1024*768 Resolutions