

Evaluation of the role of angiogenic factors in the pathogenesis of schistosomiasis.

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Schistosomiasis is one disease produced by helminths, which affect many people in tropical areas. Granuloma formation is the main mechanism involved in the pathogenesis of this disease.

Experimental studies have demonstrated angiogenesis (blood vessels formation from pre-existing vessels) in the initial phase of granuloma formation.

In the present work, VEGF (vascular endothelial growth factor) levels were analyzed in sera from people diagnosed with different helminthic infections.

Patients with schistosomiasis and filariasis had significantly high VEGF levels in compared with healthy people and patients diagnosed with hookworms. In addition, the effects of angiogenesis inhibition using anti-angiogenic factors (endostatin) were evaluated in a schistosomiasis murine model.

A lesion decrease was observed in mice infected with *Schistosoma mansoni* and treated with endostatin.

Finally, mechanisms of angiogenesis induction were studied and observed that cercariae antigens stimulated the angiogenic factors by host alveolar macrophages.