Brief Report
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A Report on Pulmonary Schistosomiasis

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Brief Report

Pulmonary schistosomiasis is a type of schistosomiasis that affects the lungs. In 50 percent of cases, the lungs are involved. It can occasionally be classified as secondary eosinophilic lung disease.

The sickness can be divided into two categories:

- Acute pulmonary schistosomiasis is a kind of schistosomiasis that affects non-immune travellers.
- Chronic pulmonary schistosomiasis is a recurrent infection that affects people who live or travel in endemic areas.

Schistosomiasis is a parasitic infection seen in tropical and subtropical areas. Acute and chronic pulmonary involvement is the two types of pulmonary involvement. People who live or travel in endemic areas acquire chronic and recurrent infections. Granuloma formation and fibrosis around schistosome eggs trapped in the pulmonary vasculature can lead to obliterative arteriolitis and pulmonary hypertension in the lungs, which can lead to death. Acute schistosomiasis is typically encountered in non-immune travellers and is linked to primary exposure. Small pulmonary nodules ranging from 2 to 15 mm, as well as bigger lesions with a ground glass-opacity halo, are typical CT findings in acute pulmonary schistosomiasis. Katayama fever is a clinical symptom of acute involvement that is very severe. We discuss common imaging findings in the acute and chronic forms of schistosomiasis and provide a case of pulmonary involvement in schistosomiasis.

Schistosomiasis is a parasite disease that is found in 70 countries and affects an estimated 200 million people globally. It's one of the top ten causes of morbidity and mortality among travellers. Acute schistosomiasis (Katayama fever) is a self-limited immunologically mediated illness that affects non-immune individuals travelling to endemic locations and was originally documented in Japan.

It usually manifests itself 3-8 weeks after infection, with symptoms such as fever, malaise, myalgia, cough, hepatomegaly, splenomegaly, and peripheral eosinophilia. Schistosomiasis is a major health concern in Saudi Arabia, particularly in the province of Asir in the south. Disease presentation is poorly understood, particularly in non-endemic areas. This may result in a delay in establishing a correct diagnosis, as well as the use of invasive techniques to do so. Schistosomiasis is a rare helminthic infection in western countries but one of the most current contagious conditions worldwide. It's also named bilharzia, named after a German croaker who was the first to describe the life circle of the sponger in 1851.

The major forms of mortal schistosomiasis are caused by five species of water- borne flatworms, or blood breaks, called schistosomes:

- *Schistosoma* (S.) *mansoni* occurs in Africa, the Eastern Mediterranean, the Caribbean and South America.
- *S. japonicum* group of parasites (including *S. mekongi* in the Mekong swash receptacle), is indigenous in South-East Asia and in the Western Pacific region.
- *S. intercalatum* has been reported from central African countries.
- *S. haematobium,* indigenous in Africa and the Eastern Mediterranean.

Acute schistosomiasis, also known as Katayama fever in Japan, typically manifests 41.5 days after a person is exposed to a first infection or a major reinfection or super infection. During the rainy season, cases can become epidemics. People with nocturnal fever peaks, coughing, generalised muscle ache, a tender, enlarged liver and headache exist. In one-third of instances, splenomegaly develops. Clinically and radiologically, diffuse pulmonary infiltrates are observed, and a few instances show indications of meningoencephalitis. All of the individuals exhibit peripheral eosinophilia and a 14-84 day history of water contact. Mild leukocytosis and an increased IgE serum level were also discovered in the lab. The most common radiographic finding is nodular lung infiltrates. Patients usually respond quickly to a 6-day course of praziquantel dosages of 20 mg/kg [1-5].

Katayama fever is diagnosed based on clinical criteria and can be missed due to a lack of clinician awareness, as in our case. Antibody tests for schistosoma can take months to provide a positive result. The ability to recognise a wide range of symptoms is critical to making an early, and sometimes even non-invasive, diagnosis. As previously stated, physicians should seriously consider the diagnosis of acute schistosomiasis in patients travelling to an endemic area and presenting with typical clinical manifestations of peripheral eosinophilia, and may begin empirical praziquantel therapy while waiting for further serological testing. Acute pulmonary schistosomiasis, like other forms of eosinophilic pneumonia, is assumed to be an immune-mediated illness. The presence of eosinophilia, immunological complexes, and higher IgE levels support this hypothesis.

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