

# Pulmonary Schistosomiasis: A Brief Report

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## Description

Schistosomiasis in the lungs is known as pulmonary schistosomiasis. The lungs are implicated in 50% of the cases. It's sometimes referred to as secondary eosinophilic lung disease [1].

The illness can be classified into two types:

- Acute pulmonary schistosomiasis is a type of schistosomiasis that affects travellers who are not immune.
- Chronic pulmonary schistosomiasis is a recurrent infection that affects persons who live in endemic areas or visit there.

In tropical and subtropical areas, schistosomiasis is a parasite ailment. The two types of pulmonary involvement are acute and chronic pulmonary involvement. People who live or travel in endemic areas become infected with chronic and recurring diseases. Granuloma formation and fibrosis around schistosome eggs trapped in the pulmonary vasculature can result in obliterative arteriolitis and pulmonary hypertension, which can lead to mortality in the lungs. Non-immune travellers are more likely to get acute schistosomiasis, which is connected to primary exposure. In acute pulmonary schistosomiasis, CT findings include small pulmonary nodules ranging from 2 to 15 mm, as well as larger lesions with a ground glass-opacity halo. Katayama fever is a very severe clinical sign of acute involvement. We go over common imaging findings in acute and chronic schistosomiasis, as well as a case of schistosomiasis pulmonary involvement [2].

Schistosomiasis is a parasitic illness that affects an estimated 200 million people worldwide and is present in 70 countries. It is one of the top ten causes of death and morbidity among travellers. Acute schistosomiasis (Katayama fever) is a self-limiting immunologically mediated illness that affects non-immune people visiting endemic areas. It was first identified in Japan. Fever, malaise, myalgia, cough, hepatomegaly, splenomegaly, and peripheral eosinophilia are common symptoms three to eight weeks after infection. In Saudi Arabia, schistosomiasis is a major public health concern, notably in the province of Asir in the south. The presentation of disease is poorly understood, especially in non-endemic locations. This could lead to a delay in making a proper diagnosis, as well as the utilisation of intrusive methods. Schistosomiasis is a rare helminthic infection in Western countries, although it is one of the most contagious diseases on the planet. It's also known as bilharzia, after a German croaker who, in 1851, was the first to describe the sponger's life cycle [3,4].

Five types of water-borne flatworms, or blood breaks, known as schistosomes, produce the principal forms of deadly schistosomiasis:

- In Africa, the Eastern Mediterranean, the Caribbean, and South America, *Schistosoma* (*S.*) *mansonii* is found.

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- The *S. japonicum* parasite group (which includes *S. mekongi* in the Mekong swash receptacle) is native to Southeast Asia and the Western Pacific.
- Central African countries have recorded *S. intercalatum*.
- *S. haematobium*, an African and Eastern Mediterranean species.

Acute schistosomiasis, often known in Japan as Katayama fever, develops 41.5 days after a person is exposed to a first infection or a large reinfection or super infection. Cases might become epidemics during the rainy season. There are those who experience nighttime fever peaks, coughing, generalised muscle discomfort, a tender, enlarged liver, and a headache. Splenomegaly develops in one-third of cases. Diffuse pulmonary infiltrates are seen clinically and radiologically, and a few cases show signs of meningoencephalitis. Individuals with peripheral eosinophilia and a 14-84 day history of water contact are all present. In the lab, mild leukocytosis and an elevated IgE serum level were also found. Nodular lung infiltrates are the most prevalent radiographic finding. Patients usually respond fast to a 6-day regimen of 20 mg/kg praziquantel. Katayama fever is identified using clinical criteria and, as in our instance, can be missed due to a lack of professional awareness [5].

## Conclusion

Antibody testing for schistosoma can take months to come back positive. It's crucial to be able to recognise a wide range of symptoms in order to make an early, and sometimes non-invasive, diagnosis. Physicians should evaluate the diagnosis of acute schistosomiasis in patients travelling to an endemic location and presenting with typical clinical signs of peripheral eosinophilia, as previously described, and may initiate empirical praziquantel therapy while waiting for further serological testing. Like other types of eosinophilic pneumonia, acute pulmonary schistosomiasis is thought to be an immune-mediated sickness. This notion is supported by the presence of eosinophilia, immunological complexes, and increased IgE levels.

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