

The complex interaction of infection and pulmonary vascular pathology

Ghazwan Butrous

Professor of Cardiopulmonary Sciences, University of Kent, Canterbury, UK

Infectious diseases are one of the leading causes of pulmonary hypertension in the world, particularly in the developing countries. A wide range of parasites, such as worms, bacteria, viruses, and fungi, are involved. They have not been thoroughly studied and there has been no worldwide epidemiological assessment, only estimates and speculation. However, research is underway on schistosomiasis and HIV. Schistosomiasis may cause a critical inflammatory response that helps reshape the pulmonary vascular system. HIV proteins interfere with several molecular pathways that facilitate significant pulmonary vascular remodelling. The study of infectious diseases in pulmonary hypertension helps improve understanding of the complex role of inflammation and the different molecular pathways of the various mechanisms in other aetiologies of pulmonary hypertension.