

## **1. ABSTRACT**

Respiratory tract infections continue to be a major cause of morbidity and mortality worldwide account for the sixth leading cause of death and it is the ninth in Sri Lanka. Pneumonia is particularly life threatening in individuals who have risk factors namely, preexisting heart or lung diseases, suppressed or weakened immunity, pregnancy, extremities of age etc.

Patients with complicated forms of pneumonia / recurrent lower Respiratory tract infections were studied for total serum antibody levels (IgM, IgG, IgA separately) using Radial Immuno Diffusion technique.

Out of 66 patients, 63 were having normal immunoglobulin levels. Of the two patients with abnormal immunoglobulin levels, a girl of four months of age old had normal level of IgG with no detectable IgA or IgM suggesting a tentative diagnosis of SCID. Other three year old girl had low level of IgG despite normal IgM and IgA levels suggesting the common variable immunodeficiency or IgG subclass deficiency. Both presented with recurrent lower respiratory tract infections. Study group was consisted of about 11% of patients with recurrent lower respiratory tract infections and the rest were with complicated form of pneumonia.

Screening for immunological deficiency is indicated in patients with recurrent lower respiratory tract infections.