

Combination Antibiotic and Pidotimod Therapy against Pneumonia



This recent study published in the Journal of Translational Medicine reports for the first time, the immunomodulatory effect of pidotimod (PDT) an immune stimulant, when administered in combination with standard antibiotic therapy to children hospitalized for community-acquired pneumonia (CAP).

Twenty children aged 3 to 14 years were enrolled and randomly assigned in a 1:1 ration to either receive standard antibiotic therapy with cefotaxime plus clarithromycin or the same antibiotics plus PDT in two daily doses, orally. Immunological parameters were evaluated 3 and 5 days after initiation of therapy as well as 7 days after the therapy had been completed. The findings indicate, PDT induced dendritic cell maturation and activation as demonstrated by the marked increase in CD11c+ cells expressing HLA-DRII, CD80 or CD86 in the treatment arm. PDT also triggered a significant increase in monocyte (CD14+ cells) maturation and activation in the treatment group when compared to the control arm and there was an up regulation of antibacterial responses against antimicrobial peptides in the PDT arm.

This study demonstrates PDT is an effect immune adjuvant and improves the immune function in young children when administered in combination with standard therapy. PDT is

associated with a favorable persistent immunomodulatory effect in children with CAP.

[Esposito, S. et al, 2015. Immunomodulatory activity of pidotimod administered with standard antibiotic therapy in children hospitalized for community-acquired pneumonia. *Journal of Translational Medicine.*](#)