

Antibiotic treatment targets difficult asthma

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Hunter researchers have shown that a commonly available antibiotic can improve the quality of life of patients with difficult asthma, and may also generate significant health care savings.

Results of a study published in the *American Journal of Respiratory and Critical Care Medicine*, a top international journal, indicate that macrolide antibiotics could prove a successful therapy in conjunction with current asthma treatment.

The study was conducted by researchers from the University of Newcastle and Hunter New England Health in collaboration with the Hunter Medical Research Institute (HMRI) Viruses, Infections/Immunity, Vaccines and Asthma (VIVA) Research Program.

Current asthma medication is focused on treating a particular cell, called an eosinophil. Increased levels of eosinophils are thought to be responsible for inflammation of the airways. However, almost half of people with asthma symptoms have normal levels of eosinophils.

“In a previous study we have shown that an inflammatory cell called the neutrophil is increased in some asthma patients and that treatments are needed to combat other types of inflammation in people with asthma,” said Dr Jodie Simpson from the University of Newcastle’s Priority Research Centre for Asthma and Respiratory Diseases. Researchers studied 45 people who had poor asthma control and were taking high daily maintenance doses of inhaled corticosteroids. In addition to their regular asthma therapy, participants received a macrolide antibiotic

(called klacid) or placebo medication for eight weeks.

“In this study we have shown that treatment with a macrolide antibiotic for eight weeks significantly reduced inflammation in the airways and improved quality of life in patients with difficult asthma,” said Dr Simpson.

“Patients with non-eosinophilic asthma particularly benefited from this treatment and this group of patients had the biggest response to the treatment. This treatment significantly reduced the number of neutrophils in the airway.

Source: Research Australia

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