

Current insights on clinical efficacy of roflumilast for treatment of COPD, asthma and ACOS

Jimmy H. Kihara

National Institute of Preventive & Social Medicine (NIPSOM), Bangladesh

Abstract

Phosphodiesterase-4 inhibitors (PDE4) are of great interest for the treatment of airway inflammatory diseases due to its broad anti-inflammatory effects. Roflumilast is a selective PDE4 inhibitor that inhibits pulmonary and systemic inflammation and relieves symptoms in airway diseases. Asthma and COPD are common chronic airway inflammatory diseases having incompletely illustrious pathophysiology and clinical manifestations. Recently, the condition called Asthma- COPD Overlap (ACO) has been evolved having the overlapping symptoms of both diseases. The newly discovered PDE4 inhibitor, roflumilast has exposed its potential in the treatment of Asthma, COPD and ACOS. Its mechanism of action in airway inflammatory diseases are said to be exerts by elevating intracellular cAMP and shows its anti-inflammatory action. Roflumilast, a promising therapeutic approach in inflammatory airway diseases, has many significant outcomes. In this review, we have provided various promising clinical evidences of roflumilast in COPD and asthma. However, there is no published clinical evidence to date for the role of roflumilast in ACOS. Nevertheless, there are therapeutic mechanisms that provide a reference for clinical application for ACOS.

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Biography

Dr. Jimmy Kithara is a medical parasitology's, with many years of experience in parasite, epidemiology, diagnosis and control in various countries including and not limited to India, Pakistan, Gambia, Ghana, Uganda etc. In the past 15 years I have been involved in control of STH and Schistosomiasis in School age children in Kenya, Pakistan

And India. Currently I am an associate senior research scientist with Kenya Medical Research Institute. Together with other scientists we have published many papers in peer review journals. Currently I am interested in parasite control and more so Female Genital Schistosomiasis which affects this vulnerable group in the society.