The following full text is a publisher's version.

For additional information about this publication click this link.
http://hdl.handle.net/2066/21236

Please be advised that this information was generated on 2020-09-11 and may be subject to change.
ASTHMA IN A FOUR GENERATION CHINESE FAMILY

C.L.M. Panhuysen1,2, D.A. Meyers3, R.C. Levitt3, R.C. Levitt3, P.J. Whiting2, K.J. Spohn, C. van Weel. Nijmegen University, Dept. of general practice and *pulmonology, Nijmegen, the Netherlands.

Introduction. Bronchial hyperresponsiveness (BHR) is one of the main features of asthma. To test the presence of BHR PC20 is normally assessed. In epidemiological studies BHR is frequently expressed as percentage of peakflow variation (ΔPEF).

Rationale. In this study we try to find out whether BHR expressed as ΔPEF is interchangeable with PC20 histamine in the general population.

Methods. 384 Subjects, without a previous diagnosis of asthma/COPD from the general population performed 3 weeks home monitoring with a peakflowmeter twice daily. Afterwards PC20 was assessed.

Conclusion. ΔPEF and PC20 are measuring different aspects of BHR. As a criterion for BHR a ΔPEF of 15% is not suitable.

Supported by the Dutch Asthma Foundation, Dutch Organisation for Scientific research & Glaxo Ltd.

P2805
NITRIC OXIDE-SYNTHASE INHIBITION CAUSES AIRWAY RESPONSIVENESS TO INHALED BRADYKININ IN NORMAL SUBJECTS

F.L.M. Ricciardolo, P. Geppetti*, A. Mistretta, J.A. Nadel*, M.A. Sapienza, S. Bellofatto, G.U. Di Maria. Inst. of Respiratory Disease, University of Catania, Italy. *Cardiovascular Research Institute, University of California San Francisco, CA, USA.

Inhaled bradykinin (BK) causes a dose-dependent bronchoconstriction in asthma, but not in normal subjects (Fuller, R.W. et al. Am. Rev. Respir. Dis. 1997; 155: 176-180). We have recently shown that bronchoconstriction induced by BK is reduced by the release of nitric oxide (NO) in guinea pigs (Ricciardolo, F.L.M. et al. Br. J. Pharmacol. 1994; 113: 1147-1152). To determine the role of endogenous NO on airway response to BK in humans, we examined the effect of the NO-synthase inhibitor N-nitro-L-arginine (N-L-NAME) or its inactive enantiomer D-N-NAME (placebo) on airway response to BK in 5 normal subjects (4 M, F, 18-35 yrs; FEV1 >80%). Subjects were studied on two study days according to a double-blind placebo-controlled cross-over design. Airway response was assessed by measuring FEV1 and airflow at 30 percent of vital capacity from volume standardized partial expiratory flow-volume curves (V50p).

Conclusions. ΔPEF and PC20 are measuring different aspects of BHR. As a criterion for BHR a ΔPEF of 15% is not suitable.

Supported by the National Skin Tissue Research Association.