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Title: Weak association between exhaled nitric oxide and bronchial responsiveness in asthmatic patients

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Body: Recent studies suggest that there is a relationship between different measures of airway inflammation in asthmatic patients. **Aim and Methods:** We studied the relationship between exhaled nitric oxide (eNO) and the level of bronchial responsiveness in 59 adult patients (15 M: 44 F) with a diagnosis of bronchial asthma. eNO was measured prior to bronchial hyperresponsiveness (BHR) testing; in 37 subjects at the same day, and in 22 subjects on average 13 days before the BHR testing. BHR was assessed with a standardized methacholine challenge test (MCh). **Results:** In the total group of asthmatics, there was no significant correlation between eNO and log(PC20). However, in the subgroup of asthmatics (n= 37) on which eNO measurement and BHR testing took place at the same day, a weak ($r^2= 0.138$) but significant correlation ($p< 0.024$) was found between eNO and log(PC20). When only asthmatics (n= 31 subjects) who did not take inhaled corticosteroids on a regular basis prior to the measurements were considered, a similarly weak ($r^2= 0.132$) but significant correlation between eNO and log(PC20) was observed ($p< 0.044$, see figure). **Conclusion:** Although there was a weak but significant correlation between the eNO-value and the log(PC20) in asthmatic adult patients, this correlation is far too weak to replace the BHR test by an eNO measurement in the diagnosis of asthma.