

The relationship between peak expiratory flow rate before bronchoscopy and arterial oxygen desaturation during bronchoscopy

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Abstract

A significant reduction in arterial blood oxygen saturation during fiberoptic bronchoscopy has been proved but it is not yet known whether all patients need supplemental oxygen during this procedure. The aim of study is to examine the relationship between peak expiratory flow rate (PEFR) before bronchoscopy and oxygen desaturation during bronchoscopy. Measurement of PEFR (% predicted) performed before bronchoscopy and arterial O₂ desaturation was assessed with a pulse oximeter during bronchoscopy. Study performed in 66 patients with a median age 57 years, who had been referred to our bronchoscopy unit. None of the patients received supplemental oxygen before the procedure. Thirty nine cases (59%) had an episode of O₂ desaturation during bronchoscopy. Of them 20 cases (32%) had sustained O₂ desaturation, requiring oxygen therapy while 19 cases (31%) had momentary desaturation (< 20 s) not requiring O₂ therapy. Oxygen therapy was administered in 58% of cases with PEFR % < 70 and in 83% of cases with PEFR % less than 40 (P, 0.008 and 0.001, respectively). We also observed a significant fall in mean O₂ saturation during bronchoscopy (88 ± 5%) compared to prebronchoscopy levels (90 ± 2%) (P < 0.0001). It is concluded that PEFR < 70% and especially < 40% is a reliable predictor of hypoxemia and the need to O₂ therapy during bronchoscopy. © 2008 Tehran University of Medical Sciences. All rights reserved.

Reaxys Database Information

Author keywords

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Indexed Keywords

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