Abstract Group: 5.2. Monitoring Airway Disease
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Title: Best time for evaluating the response to bronchodilators

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Body: Introduction: There is no clear consensus on the time of interpretation of the bronchodilator effect. The interval between administration of bronchodilator type β2-agonist short-acting and the practice of post bronchodilator spirometry remains a controversial issue. Our objective was to define the optimal time of bronchodilator responsiveness in assessing the reversibility or otherwise of an obstructive respiratory disorder (ORD). Materials and Methods: Analytical study prospectively over a period of 8 months, performed in the pneumology service of FSI Hospital Security. The study included patients with ORD defined by an FEV₁ / FVC <0.7 and who had consulted outside of an exacerbation. Flows and expiratory volumes (FEV₁, FVC) were measured before and after bronchodilator in the 5th, 10th, 15th, 20th and 30th minute. The response to BD was expressed in absolute and percentage change from baseline. Results: 58 patients were included in the study, mean age 54 ± 15 years with a majority of men. Our study was conducted in patients with asthma and COPD whose airway obstruction was moderate (FEV₁ = 2 liters, or 62 ± 15% predicted). (1) The maximum response after bronchodilator occurred at the 20th and 30th minutes respectively for FVC and FEV₁. (2) The number of reversible patients was guideline depending. (3) The maximum number of reversible patients was obtained in the 20th minute with a significant difference compared to that observed at the 5th and 10th minute. Conclusion: The interpretation of the response to bronchodilator in the 20th minute after was the ideal time to assess the reversibility of ORD.