## Ipratropium bromide is more effective than Salmeterol — Fluticason combination on $O_2$ saturation patients with COPD

Sir.

Recent studies investigated on effectiveness of Ipratropium and Salmeterol — Fluticason (SFC) in chronic obstructive pulmonary disease (COPD) patients. Some of these investigations revealed these increased  $\rm O_2$  saturation (SaO<sub>2</sub>) in duration sleep and increased quality of life. <sup>[1,2]</sup> Thus, we decided to evaluate and compare the effect of Ipratropium bromide and SFC on SaO<sub>2</sub> in patients suffered by COPD.

We selected 35 COPD patients who referred to Firuzgar hospital in 2009. Participants randomized by computer generated, and then participants treated with Ipratropium bromide (40  $\mu$ g/QID) or SFC (50/250 mg/BD) under crossover randomization. Each participant was followed for two days, and then treatment stopped for two days. After this, each study group received another

medication for two days. We measured  $SaO_2$  by fingertip pulsoxymeter, in two groups before and after 15, 30, 60, and 180 min inhalation of SFC or Ipratropium bromide. A repeated-measures analysis of variances was performed to compare the ability of each of the medication to increase  $SaO_2$  before and after medication. We revealed both of Ipratropium and SFC increased  $SaO_2$ , but Ipratropium bromide inhalation was more effective than SFC to increasing  $O_2$  saturation after 30 min inhalation these drugs. Our findings indicated that both Ipratropium and SFC increased  $SaO_2$ , but inhaled Ipratropium bromide was more effective than SFC to increase  $SaO_2$  but 30 min after inhalation of these drugs.

## Nader Rezaie, Narges Sadat Shams-Hosseini, Atefeh Kashanizadeh, Mohammad Ali Karimi

Department of Pulmonary Disease, Tehran University of Medical Science, Tehran, Iran

Address for correspondence: Dr. Nader Rezaie, Department of Pulmonary Disease, Tehran University of Medical Science, Tehran, Iran. E-mail: drnader48@gmail.com

## **REFERENCES**

- Amra B, Golshan M, Fietze I, Penzel T, Welte T. Correlation between chronic obstructive pulmonary disease and obstructive sleep apnea syndrome in a general population in Iran. J Res Med Sci 2011;16:885-9.
- Martin RJ, Bartelson BL, Smith P, Hudgel DW, Lewis D, Pohl G, et al. Effect of ipratropium bromide treatment on oxygen saturation and sleep quality in COPD. Chest 1999;115:1338-45.