

A Prospective study to evaluate the impact of pharmacist counseling in improving inhaler device technique in COPD patients using MDI with spacer and MDI.

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Abstract: This study was conducted to compare the inhaler technique scores in COPD patients using MDI (Metered Dose Inhaler) device with or without spacer before and after pharmacist counseling. A prospective study was conducted from August 2019 to August 2020. A total of 174 COPD patients were enrolled in the study out of which 104 patients were using MDI device and 74 patients were on MDI with spacer. Following the assessment, pharmacist demonstrated the proper use of MDI and MDI space to the patients. This intervention was performed at T1 (month 0) and T2 (month 1). Patients were then called after 2 months and asked to demonstrate the steps to assessment the impact of pharmacist intervention. An 8-point checklist of recommended steps was employed to assess the inhaler technique scores at the baseline and after counseling. Total scores were expressed as the sum of points received for each step. Age, sex, COPD severity and duration of inhaler use were other relevant information recorded at the baseline. The mean Inhaler technique scores of correct steps in both groups improved significantly from 4.7 ± 1.4 to 6.1 ± 1.0 ($P < 0.05$) in patients using MDI with spacer and from 5.2 ± 1.3 to 6.6 ± 0.7 ($P < 0.05$) in patients using MDI respectively.

Similarly, there was a significant reduction in the mean Inhaler technique scores of incorrect steps in both groups improved significantly from 3.2 ± 1.4 to 1.8 ± 1.0 ($P < 0.05$) in patients using MDI with spacer and from 2.7 ± 1.3 to 1.3 ± 0.7 ($P < 0.05$) in patients using MDI. The outcomes of the study proved that pharmacist intervention helped to improve Inhaler technique scores in COPD patients using MDI with spacer and MDI. [ABSTRACT FROM AUTHOR]

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