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Tulobuterol Transdermal Patch as an add on therapy in Stable COPD

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Background: Tulobuterol Transdermal Drug Delivery (TTD) may be beneficial in COPD management. We aimed to study the effect of adding TTD to Triple Inhalation therapy (TI).

Aims and Objectives: To study the effect of adding Tulobuterol Transdermal Patch to Triple Inhalation Therapy.

Methods: Participants on TTD and TI (TTD-TI cohort) and, TI only (TI cohort) were identified at the out-patient pharmacy counter. There was no loss to follow-up from 35 participants each enrolled in the cohorts. They were assessed with Modified British Medical Research Council questionnaire (mMRC), COPD Control Questionnaire (CCQ) and COPD Assessment Test (CAT). The latter two were repeated at the end of six months. The change in score were compared with Mann-Whitney-U test.

Results: Mean age of participants in years was 63.4 and 65.7; 31% and 20% were females and rest were males in TTD-TI and TI cohorts respectively. All of them had mMRC grade 2 or above. CCQ and CAT scores were comparable at baseline. Change in both CCQ and CAT scores were statistically significant between the cohorts ($p<0.001$). Median (minimum, maximum) change in CCQ score were -0.6(-2.8, 0) in TTD-TI cohort and 0.3(-2 to 1.2) in TI cohort. Median (minimum, maximum) change in CAT score were -4(-16, -2) in TTD-TI cohort and 2(-7 to 7) in TI cohort. All of the participants in TTD-TI cohort and, 5(14.3%) and 7(20%) participants improved in TI cohort by CCQ and CAT score respectively.

Conclusion: There would be a subjective improvement with addition of tulobuterol transdermal patch on to triple inhalation therapy for older persons with COPD.

Key words : Tulobuterol Transdermal Patch, Long Acting Beta-2 Agonists, Chronic Obstructive Pulmonary Disease.