

## **AEROSOLOTHERAPY IN STABLE COPD: THE ABILITY TO USE INHALERS AND USEFULNESS OF PIF MEASUREMENT IN THE SELECTION OF AN INHALER**

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**Objectives:** To assess the correctness of common inhalers use by COPD patients and the relationship between the level of COPD education and quality of life.

**Methods:** 66 subjects, 23 women and 43 men suffering from COPD (mean age 67  $\pm$  8,7; disease duration 9,4 $\pm$ 8,1; cigarette consumption 39,7 $\pm$ 28,6 pack-years) and classified at II, III and IV stage of the disease severity by GOLD were enrolled in the study. The assessment of inhalers ability use was performed utilizing an original assessment scale. The patient's COPD educational level and quality of life based on SGRQ were evaluated as well. In all cases lung function tests including PIF measurement with dry powder inhaler resistance valves (Clement Clark In Check Dial Inspiratory Flow) were performed.

**Results:** There were significant differences concerning the correctness of inhalers use. Patients fulfilled the manufacturer recommendations in 86%, 80,8%, 77,9%, 68,8%, and 67,6% in case of Discus (D), Meter Dose Inhaler with spacer (MDI-S), Aerolizer (A), Turbuhaler (T) and MDI respectively. There were statistically significant differences found between A vs. D ( $p=0,0375$ ), D vs MDI ( $p=0,0001$ ) and D vs. T ( $p=0,007$ ). No relationship between COPD educational level and the quality of life was revealed. The PIF values (with resistance valves) and the percentage of patients reaching optimal and minimal PIF value for each device were found as follows: (D) 88,2 l/min (100% i 100%); (T) 66,09 (62,8% i 100%); (A) 95,73 (18,6% i 86%).

**Conclusions:** The choice of appropriate inhaler in COPD patients should be individual and take into account not only patient's preferences but also PIF value and the patient's ability of inhaler use. We found no relationship between COPD educational level and the quality of life.