

INFLUENCE OF COMPLEX TREATMENT WITH ANTIDEPRESSANT AGOMELATINE ON PULMONARY FUNCTION, EXERCISE TOLERANCE AND SLEEP QUALITY IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND DEPRESSION

**Yu. I. Feshchenko, L. O. Iashyna, V. I. Ignatieva, O. V. Potochniak,
I. V. Zvol, S. M. Moskalenko, L. A. Savelieva, N. I. Yuhno**

Abstract

The *aim*: to study the effects of combined therapy with antidepressant agomelatine on pulmonary function, exercise tolerance and quality of sleep in patients with chronic obstructive pulmonary disease (COPD) in combination with a depressive episode (DE).

Materials and methods. There was enrolled 30 patients with COPD/DE (20 men and 10 women, mean age ($61,7 \pm 1,9$) years, history of COPD ($14,8 \pm 1,1$) years and smoking history ($14,6 \pm 2,7$) a pack-years), FEV_1 — ($55,3 \pm 3,6$) %, FEV_1/FVC — ($53,9 \pm 3,7$). Two treatment options were compared: standard maintenance therapy of COPD for 3 months alone and maintenance treatment in combination with agomelatine 25 mg once daily (1 hour before bedtime) for 3 months. The following methods were used: questionnaires, physical examination, pulmonary function test, 6-minute walk test (6MWT), neural respiratory drive measurement and polysomnography.

Results. The use of agomelatine in addition to maintenance treatment caused several statistically significant effects: a decrease of mMRC dyspnea score from ($2,4 \pm 0,2$) to ($1,9 \pm 0,2$) points ($p < 0,05$); CAT score from ($20,8 \pm 1,3$) to ($11,9 \pm 1,4$) points ($p < 0,0001$); reduction of depression according to the PHQ-9 score from ($16,8 \pm 0,3$) to ($5,9 \pm 0,6$) points ($p < 0,0001$); increase in forced vital capacity (FVC) from ($75,8 \pm 2,8$) % to ($83,6 \pm 2,8$) % ($p < 0,05$); increase of 6MWT distance from ($277,0 \pm 11,5$) to ($302,0 \pm 11,7$) meters ($p < 0,0001$); increase in sleep efficiency according to polysomnography index from ($67,9 \pm 5,1$) to ($77,3 \pm 3,2$) % ($p < 0,05$); normalization of NREM sleep phase, by extension of sleep stages 3 and 4, reduced REM phase of sleep, increase in total sleep time from ($4,9 \pm 0,4$) to ($5,8 \pm 0,3$) h ($p < 0,05$), indicating the overall normalization of sleep architectonics.

Conclusion. Use of agomelatine in maintenance treatment of patients with COPD combined with DE improves clinical symptoms, pulmonary function, exercise tolerance, and normalizes sleep architectonics and sleep efficiency according to the polysomnography test results.

Key words: chronic obstructive pulmonary disease, depressive episode, agomelatine, complex treatment.

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Yurii I. Feshchenko

*Director of National Institute of phthysiology
and pulmonology named after F. G. Yanovskii*

National Academy of medical sciences of Ukraine

Academician of NAMS of Ukraine, professor

03680, Kyiv, 10, M. Amosova str.

Tel.: 380 44 275 0402, fax: 380 44 275 2118;

admin@ifp.kiev.ua