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Title: Interrelation between some indices of polysomnography and nasal flows in severe COPD patients

Prof. Dr Ludmila 5280 lashyna diagnost@ifp.kiev.ua MD ¹, Prof. Dr Yra 5281 Feshchenko diagnost@ifp.kiev.ua MD ¹, Dr. Viktoria 5282 Ignatieva diagnost@ifp.kiev.ua MD ¹, Dr. Sveta 5283 Ishyk diagnost@ifp.kiev.ua MD ¹, Dr. Natalia 5284 Kramarskya diagnost@ifp.kiev.ua MD ¹ and Dr. Natalia 5285 Dyachenko diagnost@ifp.kiev.ua MD ¹. ¹ Department of Diagnostic, Therapy and Clinical Pharmacology of Lung Diseases, State Organization "National Institute of Phthysiology and Pulmonology Named after F.G.Yanovsky NAMS of Ukraine, Kiev, Ukraine, 03680 .

Body: Aim of study: to study interrelation between indices of polysomnography (PSG) and rhinometry in severe COPD patients patients. Methods of study: 60 severe COPD patients (Post BD FEV1 – $(41,6 \pm 2,1)$ %), 45 male and 15 female at the age 41 -- 79 years) were investigated with the use of anterior active rhinomanometry, spirometry, PSG ("SomnoStar Pro", "Cardinal Health" (Germany), statistics. Results: complications with nasal breathing were revealed in 50 (83,3%) of patients. In 49 (81,7%) patients was diagnosed vasculomotor rhinitis, accompanied by hypertrophy of maxilloturbinal bone in 44 (81,7%) cases, in 30 % of patients had deviated septum. Correlation analysis revealed significant direct connection of medium strength between left inspiratory nasal flow (LINF) and apnea index (AI) – ($r = 0,428$, $p < 0,05$), between LINF and awakenings/hour ($r = 0,493$, $p < 0,05$), between right inspiratory nasal flow (RINF) and AI ($r = 0,575$, $p < 0,05$), between LINF and apnea-hypoapnea index (AHI) ($r = 0,494$, $p < 0,05$). Conclusion: in severe COPD patients aerodynamic impairments of upper airways due to vasomotor rhinitis complicated by hypertrophy of the maxilloturbinal bone and deviation of nasal septum conditioned appearance and severity of respiratory disorders during sleep.