

European Respiratory Society Annual Congress 2012

Abstract Number: 4529

Publication Number: P953

Abstract Group: 4.3. Pulmonary Circulation and Pulmonary Vascular Disease

Keyword 1: Pulmonary hypertension **Keyword 2:** Treatments **Keyword 3:** Molecular pathology

Title: Bosentan influence on catecholamines levels in patients with idiopathic arterial pulmonary hypertension

Ms. E. 27602 Kobal keaa@list.ru MD ¹, Dr. T. 27603 Martynyuk keaa@list.ru MD ¹, Mrs. O. 27604 Arkhipova keaa@list.ru MD ¹, Dr. V. 27605 Masenko keaa@list.ru ¹, Dr. S. 27606 Nakonechnikov keaa@list.ru ¹ and Prof. I. 27610 Chazova keaa@list.ru MD ¹. ¹ Systemic Hypertension, Russian Cardiology Research-and-Production Complex, Moscow, Russian Federation .

Body: Aim: to assess the influence of endothelin receptor antagonist Bosentan on catecholamines levels in pts with idiopathic pulmonary arterial hypertension (IPAH). Methods: In the single-center comparative study we included 35 pts aged 35,2±9,6ys with IPAH confirmed by RHC(WHO Functional Class (FC) II-IV) without systemic inflammation signs. On top of stable therapy with anticoagulants, diuretics, glycosides, calcium antagonists for at least 3 months, Bosentan therapy was started 62,5 mg twice daily for 4 wks. At wk4 the pts were randomized 1:1 by the envelope method to bosentan 125 or 250 mg/day. At baseline, at wk3 and wk12 visits the pts underwent the clinical and lab assessment, including catecholamines (HPLC). Results: At baseline IPAH groups were comparable by age, sex, disease duration, hemodynamic parameters. In both groups the levels of norepinephrine were significantly higher than normal values (139,9±1,2). Otherwise the epinephrine levels were decreased as compared with controls (69,4±1,2).

table1

Parameter	Group 1 (bosentan 125mg)	Group 1	Group 1	Group 2 (bosentan 250mg)	Group 2	Group 2
	Baseline	Wk3	Wk12	Baseline	Wk3	Wk12
norepinephrine (pg/ml)	679,7 [297,1;1019,2]	524,8 [202,5; 721,7] *	153,6 [109,5;294,9] *	384,6 [257,7; 888,3]	428,0±288,9 354,8 [206,9; 625,3] *	248,1 [154,3; 475,8] *
epinephrine (pg/ml)	45,8 [40,5; 60,5]	39,80 [38,1; 46,7]	27,1 [25,1; 44,4]	29,9 [17,1; 40,9] #	29,1 [26,1; 54,3]	34,3 [26,2; 48,7]

* p<0,05 vs baseline, # p<0,05 group 1 vs group 2

Conclusion: In IPAH pts Bosentan therapy influenced on catecholamines levels by significant reduction of initially increased norepinephrine levels. This effect was more pronounced in Pts treated with Bosentan 125mg daily.