European Respiratory Society
Annual Congress 2012

Title: Asthma control and demographic, nutritional, functional and quality of life

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Body: We studied if the Asthma Control Test (ACT) is related to nutritional and inflammation status, symptoms, lung function and quality of life (QOL). METHODS Prospective cross-sectional study with 3 groups: ACT<15, ACT 15-20 and ACT>20; assesing: demographic data, nutritional and inflammation status, lung function, nº of exacerbations, hyperventilation syndrome (Nijmegen Questionnaire, NQ) and QOL (St. George's Respiratory Questionnaire, SGRQ). RESULTS 81 patients (19 men, 62 women, 47.4±16.1 years). Average ACT was 18.7±5 (poorly controlled group, PCG 22.2% vs well-controlled group, WCG 50.62%). There were significant differences in the 3 groups.

Table 1

	PCG	Partially	WCG	P
Age	49.7±14	51.7±16	44.2±16	NS
BMI	28.9±6	29.6±6	27.1±5	NS
% Severe asthma	94	62	32	0.000
FEV1%	65.4±20	76.3±17	82.8±18	0.006
Nº exacerbations	4±3	2.4±3	0.8±0.9	0.002
Dispnea MRC	1.12±0.8	1.19±0.8	0.32±0.5	0.000
CRP	9.2±12	3.1±1.9	3.1±3.7	0.034
NQ	24.2±8.5	26±10	15±9	0.000
SGRQ	60.8±16.8	55.2±15	37±11.4	0.000
Activity	71.8±22	63.5±22	36.2±20	0.000
Symptoms	61.8±19.8	56±12	43.8±11.8	0.002

| Impact | 54±16 | 49.2±18 | 35.4±11 | 0.001 |

Using Bonferroni test, the differences were based on PCG and WCG. Only in dyspnea, FEV1%, NQ and SGRQ, we saw significant differences between partial and PCG. Multiple linear regression considered activity and symptoms (SGRQ) as independent variables. There were no differences in nutrition and inflammation, except for the CRP. CONCLUSIONS The difference between the three groups was at the expense of that between PCG and WCG. PCG presented severe course of disease, worse lung function, hyperventilation, some degree of inflammation, increased number of exacerbations and poorer QOL. There was no relationship between worse asthma control and nutrition.