SUPPLEMENTARY MATERIAL

Methods

Database analysis

To analyze data collected in the database, it was decided to begin with a descriptive analysis of the entire population included in the study. To this end, the variables were described according to their characteristics. Discrete variables were described as frequency (%). Continuous variables were divided according to their normality characteristics. Parametric variables were described as mean ± standard deviation. In the case of non-Gaussian variables, the format chosen was median (interquartile range). In order to determine whether the continuous variables conformed to a normal distribution, it was decided to superimpose the histogram and normality line for every variable. The Kolmogorv-Smirnoff and Saphiro-Wilk tests could not be applied because they are very sensitive tests, not valid for sample sizes greater than 200-300.

Subsequently, patients were divided into asthmatics and non-asthmatics and all variables were compared to see if there were statistically significant differences between the two groups of patients. Different tests were ran to make these comparisons, again defined by the characteristics of the variables. Discrete variables were compared with the Chi-square test when all sample sizes were greater than 5. If at least one of the sample sizes was less than 5, the test used was Fisher's exact test. Continuous variables were also divided between normal and non-normal. Variables with a normal distribution were analyzed using parametric tests, in this case the Student's t-test. For non-parametric variables Mann Whitney U-test was selected.

As suggested in literature and endorsed in our analysis, age and sex are two important confounding factors in both asthma [20,23-25] and obesity [21,25]. Therefore, it was decided to standardize all analyses with respect to these two variables. To test whether they were important confounders, multivariate linear regressions were performed with several variables and it was found that both age and sex significantly altered the effect of the predictors, thus confirming that both are confounders.

For standardization by sex, patients were stratified into males and females and two separate tables were created, as recommended in literature [20]. For age normalization, the ANCOVA test was performed with age as a covariate. We chose to always normalize by ANCOVA test and not by stratification because there are no clear cut-off points to establish age groups in asthma. To ensure that ANCOVA could be performed in all comparisons, all residual distributions were checked for normality and Levene's test was performed to test for equality of variances. In addition to these two variables, and since more than one covariate can be introduced simultaneously in the ANCOVA test, data we also normalized with respect to the corticosteroid medication that the patient was receiving as a treatment.

In order to normalize by corticosteroid medication, patients were stratified into different groups, depending on the medication they were taking in the moment the spirometry was performed. This classification was designed according to GEMA guideline classification for asthma treatment [34]. 6 groups were created. Patients with inhaled corticosteroids were divided into 3 groups, according to GEMA's guideline inhale glucocorticosteroid potency table. 3 other groups were

considered, one for patients with no treatment, other for patients with systemic corticosteroid treatment and a last group for patients with biologic treatments.

For dichotomous discrete variables, it was decided to calculate odds ratio (OR) and relative risk (RR). whenever the value 1 was contained within the 95% confidence interval these risk values were stipulated as not significant (NS). Subsequently, these same procedures were applied to analyze the possible differences that might exist between women and men and between asthmatics and non-asthmatics in each BMI group (<20, 20-25, 25-30 and >30).

After these initial comparisons, all asthmatics were divided into the 4 existing BMI groups: <20, 20-25, 25-30 and >30. The variables were described as mentioned above, but the analysis to look for possible statistically significant differences varied. In this case the comparison between the discrete variables were analyzed with the Chi-square test, performing 2 to 2 comparisons. Since in this case the comparisons remained 2 to 2 both OR and RR were recalculated for dichotomous variables.

On the other hand, for the continuous variables analysis, new tests were selected because more than 2 groups should be compared. For variables with a normal distribution, a comparison of parametric means was performed using the ANOVA test. In order to make 2 to 2 comparisons between the existing groups, a post-hoc test was ran, in this case the Bonferroni test. Continuous variables that did not adhere to a normal distribution, needed a nonparametric test, where Kruskal Wallis test was chosen. For 2 to 2 comparisons in non-parametric variables between the existing groups U-Mann Whitney test was used.

Normalization by stratification for sex and ANCOVA for age and medication intake as confounders was also performed for comparisons between 4 groups. A

Bonferroni post-hoc test was also run for this matter. Patients were also divided into 4 age groups (3-18 years old, 19-39 years old, 40-64 years old and > 65 years old). Comparisons were made between the 4 age groups and subsequently between the 4 existing BMI groups in each of the age strata. To avoid the loss of power of the tests, when stratifying by sex and age group, it was decided to also perform a stratified analysis by age group, but without stratifying by sex. In this case, in addition to the aforementioned analyses, sex was introduced as an additional covariate in the normalization by ANCOVA.

As an analysis of the effect of BMI on asthma, histograms with trend curves were prepared for each of the variables and patient categories to be studied. For this purpose, a general description of each variable was obtained, and then graphical comparisons were made between asthmatics and non-asthmatics, women and men, and between asthmatic and non-asthmatic men and asthmatic and non-asthmatic women. Subsequently, these comparisons were also carried out in asthmatics according to the 4 BMI groups, comparing also between men and women, according to the 4 age groups and comparing by sex. The sample sizes were significantly reduced when stratifying by both sex and age groups. Therefore, it was decided to perform these same analyses stratified by age group, but not by sex. This increased the power of the statistical tests, making possible to obtain statistically significant differences that could not have been revealed with smaller samples.

Data analysis was performed using IBM® SPSS® statistics 25.

Results

Table 3. Asthmatic patients <18 years old.

	BMI <20	BMI 20-25	BMI 25-30	BMI >30	ANOVA / Kruskal-Wallis / Chi cuadrado	<20 vs 20-25	<20 vs 25-30	<20 vs >30	20-25 vs 25-30	20-25 vs >30	25-30 vs >30
Sample Size	275	160	35	13	-	-	-	-	-	-	-
Age	9,8 ± 3,21	13,42 ± 3,01	14,23 ± 3,25	15,85 ± 1,57	<0,001***	<0,001***	<0,001***	<0,001***	<0,001***	<0,001***	<0,001***
Men	113 (41%)	70 (44%)	21 (60%)	5 (38%)	0,198	-	-	-	-	-	-
Women	162 (59%)	90 (56%)	14 (40%)	8 (62%)	0,198	-	-	-	-	-	-
Weight	34,69 ± 10,53	56,32 ± 10,10	70,65 ± 11,48	95,15 ± 11,95	<0,001*** / <0,001***	<0,001***	<0,001***	<0,001***	<0,001***	<0,001***	<0,001*** / <0,001**
Height	140,79 ± 17,35	159,19 ± 13,49	161,60 ± 12,24	168,65 ± 8,57	<0,001*** / 0,052	<0,001*** / -	<0,001*** / -	<0,001*** / -	1 / -	0,198 / -	0,928 / -
BMI	17,05 ± 1,73	22,07 ± 1,43	26,91 ± 1,44	33,32 ± 2,79	<0,001*** / <0,001***	<0,001***	<0,001***	<0,001***	<0,001***	<0,001***	<0,001*** / <0,001**
FEV_1 (L)	2,06 ± 0,76	2,97 ± 0,85	3,14 ± 0,88	3,57 ± 0,60	<0,001*** / 0,011*	<0,001*** / 0,020*	<0,001*** / 0,160	<0,001*** / 0,547	1 / 1	0,058 / 1	0,606 / 1
FEV_1 %	98,95 ± 15,50	100,03 ± 14,59	101,77 ± 13,27	97,46 ± 8,58	0,654 / 0,357	-	-	-	-	-	-
FEV_1 Z-score	-0,18 ± 1,21	-0,10 ± 1,27	-0,13 ± 1,30	-0,14 ± 0,99	0,925 / 0,155	-	-	-	-	-	-
FVC (L)	2,43 ± 0,86	3,57 ± 1,05	3,85 ± 1,09	4,53 ± 0,97	<0,001*** / <0,001***	<0,001*** / <0,001***	<0,001*** / 0,001**	<0,001*** / 0,002**	0,694 / 0,914	0,003** / 0,215	0,173 / 1
FVC %	99,55 ± 13,85	101,90 ± 11,70	106,00 ± 13,19	104,00 ± 8,75	0,019* / <0,001***	0,417 / 0,011*	0,036* / 0,002**	1 / 0,185	0,552 / 0,480	1 / 1	1 / 1
FVC Z-score	0,12 ± 1,17	0,28 ± 1,27	0,37 ± 1,45	0,68 ± 1,33	0,217 / <0,001***	- / 0,002**	- / 0,001**	- / 0,016*	- / 0,422	- / 0,535	- / 1
FEV_1/FVC (L)	84,66 ± 7,78	83,14 ± 7,09	81,83 ± 6,34	79,62 ± 7,28	0,010* / 0,006**	0,246 / 0,134	0,207 / 0,056	0,104 / 0,079	1 / 1	0,607 / 0,591	1 / 1
FEV_1/FVC Z-score	-0,53 ± 1,14	-0,64 ± 1,08	-0,79 ± 0,95	-1,16 ± 1,01	0,132 / <0,001***	- / 0,041*	- / 0,009**	- / 0,016*	- / 0,646	- / 0,256	- / 1
$FEF_{25\text{-}75}$ (L)	2,24 ± 0,99	3,08 ± 1,08	3,14 ± 1,00	3,36 ± 0,69	<0,001*** / 0,627	<0,001*** / -	<0,001*** / -	0,001** / -	1 / -	1 / -	1 / -
$FEF_{25\text{-}75}$ %	84,19 ± 24,28	86,26 ± 22,82	83,83 ± 20,02	77,46 ± 18,18	0,545 / 0,443	-	-	-	-	-	-
+ Bronchodilation	30 (15%)	19 (17%)	4 (16%)	1 (11%)	0,968	-	-	-	-	-	-
* Bronchodilation	28 (14%)	13 (11%)	3 (12%)	0 (0%)	0,595	-	-	-	-	-	-
- Bronchodilation	139 (71%)	82 (72%)	18 (72%)	8 (89%)	0,697	-	-	-	-	-	-
Asthma onset prior 12 years old	254 (92%)	129 (81%)	28 (80%)	7 (54%)	<0,001***	<0,001***	0,016*	<0,001***	0,933	0,024*	0,070
Allergic asthma	230 (84%)	134 (84%)	32 (89%)	10 (77%)	0,790	-	-	-	-	-	-
Asthma in symptomatic period	138 (50%)	74 (46%)	19 (54%)	6 (46%)	0,784	-	-	-	-	-	-
Persistent asthma	43 (16%)	19 (12%)	4 (11%)	3 (23%)	0,527	-	-	-	-	-	-
Symptoms presence	60 (22%)	35 (22%)	8 (23%)	2 (15%)	0,953	-	-	-	-	-	-
Rhinitis	262 (95%)	153 (96%)	33 (94%)	13 (100%)	0,859	-	-	-	-	-	-
Atopy	265 (96%)	150 (94%)	35 (100%)	12 (92%)	0,300	-	-	-	-	-	-
Food allergy	72 (26%)	33 (21%)	14 (40%)	2 (15%)	0,083	-	-	-	-	-	-
Drug allergy	3 (1%)	3 (2%)	1 (3%)	0 (0%)	0,771	-	-	-	-	-	-
NSAID vs other drugs	3 (100%)	0 (0%)	0 (0%)	0 (0%)	0,030*	0,1	0,25	1	1	1	1
NSAID vs total drug allergy	3 (1%)	0 (0%)	0 (0%)	0 (0%)	0,516	-	-	-	-	-	-
Allergic contact dermatitis	2 (1%)	0 (0%)	0 (0%)	0 (0%)	0,678	-	-	-	-	-	-
Comorbities	44 (16%)	19 (12%)	4 (11%)	1 (8%)	0,547	-	-	-	-	-	-
FeNO (ppb)	27,8 (32,7)	33,65 (37,7)	26,45 (39,1)	37,1 (37,2)	0,169 / 0,236	-	-	-	-	-	-
Peripheral blood eosinophils (Eos/uL)	400 (400)	300 (300)	500 (325)	300 (300)	0,277 / 0,369	-	-	-	-	-	-
Total IgE (kU/L)	434 (738)	297 (713)	688 (855)	429 (347)	0,270 / 0,258	-	-	-	-	-	-

Table III: Data is presented as n (%) and mean ± standard deviation, FEV_1: Forced expiratory volume, FVC: Forced vital capacity, $FEF_{25\text{-}75}$: Forced expiratory flow between 25% and 75% of the spirometry, + Bronchodilation: Variation in FEV_1 >12% and >200 ml in bronchodilation test, * Bronchodilation: Variation in FVC >10% and/or variation in $FEF_{25\text{-}75}$ >30% with a variation in FEV1 <12% and/or <200ml in bronchodilation test, - Bronchodilation: Variation in FEV_1 <12% and/or <200ml variation in FVC <10% and variation in $FEF_{25\text{-}75}$ <30%, %: Percentage, *: p<0.05, **: p<0.01, ***: p<0.001, _ANCOVA_: Negative for Levene test, **Results: Statistically significant**.

Table 4. Asthmatic patients 19-39 years old.

	BMI <20	BMI 20-25	BMI 25-30	BMI >30	ANOVA / Kruskal-Wallis / Chi cuadrado	<20 vs 20-25	<20 vs 25-30	<20 vs >30	20-25 vs 25-30	20-25 vs >30	25-30 vs >30
Sample Size	48	241	160	80	-	-	-	-	-	-	-
Age	27,35 ± 5,63	29,34 ± 6,15	30,26 ± 6,26	30,50 ± 5,83	**0,015***	0,235	**0,023***	**0,029***	0,840	0,853	1
Men	11 (23%)	71 (30%)	81 (51%)	28 (35%)	**<0,001***	0,358	**<0,001***	0,151	**<0,001***	0,353	**0,022***
Women	37 (77%)	170 (71%)	79 (49%)	52 (65%)	**<0,001***	0,358	**<0,001***	0,151	**<0,001***	0,353	**0,022***
Weight	53,76 ± 6,91	63,63 ± 8,68	78,34 ± 9,25	97,83 ± 16,40	**<0,001*** / **<0,001***	**<0,001*** / **<0,001***	**<0,001*** / **<0,001***	**<0,001*** / **<0,001***	**<0,001*** / **<0,001***	**<0,001*** / **<0,001***	**<0,001*** / **<0,001***
Height	167,73 ± 9,50	167,01 ± 9,03	169,35 ± 9,03	166,88 ± 8,44	0,060 / *0,143*	-	-	-	-	-	-
BMI	19,04 ± 0,78	22,69 ± 1,37	27,23 ± 1,39	34,97 ± 3,87	**<0,001*** / **<0,001***	**<0,001*** / **<0,001***	**<0,001*** / **<0,001***	**<0,001*** / **<0,001***	**<0,001*** / **<0,001***	**<0,001*** / **<0,001***	**<0,001*** / **<0,001***
FEV$_1$ (L)	3,23 ± 0,73	3,39 ± 0,71	3,63 ± 0,77	3,38 ± 0,71	**0,001** / *-*	0,920 / *-*	**0,005** / *-*	1 / *-*	**0,009** / *-*	1 / *-*	0,071 / *-*
FEV$_1$ %	93,90 ± 13,74	99,35 ± 13,42	99,66 ± 12,43	98,96 ± 14,00	0,055 / *0,049***	- / *0,059*	**0,039***	*0,216*	*1*	*1*	*1*
FEV$_1$ Z-score	-1,37 ± 1,32	-0,77 ± 1,37	-0,21 ± 1,59	-0,70 ± 1,39	**<0,001*** / *0,011***	0,055 / *0,040***	**<0,001*** / **0,006***	0,067 / *0,203*	**0,001** / *1*	1 / *1*	0,084 / *1*
FVC (L)	4,02 ± 0,83	4,25 ± 0,91	4,55 ± 0,97	4,13 ± 0,91	**<0,001*** / *0,037***	0,665 / *0,555*	**0,003** / *0,646*	1 / *1*	**0,009** / *1*	1 / *0,097*	**0,005** / *0,137*
FVC %	100,25 ± 11,34	106,49 ± 11,31	106,49 ± 11,41	103,70 ± 12,74	**0,002** / *0,003***	**0,004** / *0,007***	**0,007** / *0,009***	0,619 / *0,885*	1 / *1*	0,372 / *0,318*	0,471 / *0,307*
FVC Z-score	-1,07 ± 1,16	-0,44 ± 1,38	0,14 ± 1,56	-0,62 ± 1,42	**<0,001*** / *<0,001***	0,036* / *0,004***	**<0,001*** / *0,001***	0,523 / *1*	**<0,001*** / *1*	1 / *0,106*	**0,001** / *0,027***
FEV$_1$/FVC (L)	81,23 ± 10,47	80,30 ± 7,96	79,85 ± 6,94	81,85 ± 5,57	0,234 / *0,254*	-	-	-	-	-	-
FEV$_1$/FVC Z-score	-0,48 ± 1,42	-0,56 ± 1,10	-0,60 ± 1,02	-0,26 ± 0,87	0,123 / *0,157*	-	-	-	-	-	-
FEF$_{25-75}$ (L)	3,32 ± 1,18	3,35 ± 1,09	3,55 ± 1,14	3,50 ± 0,97	0,269 / *0,563*	-	-	-	-	-	-
FEF$_{25-75}$ %	78,23 ± 26,16	79,63 ± 24,15	81,33 ± 24,11	83,70 ± 22,72	0,509 / *0,390*	-	-	-	-	-	-
+ Bronchodilation	4 (10%)	20 (11%)	9 (8%)	6 (10%)	0,774	-	-	-	-	-	-
* Bronchodilation	3 (8%)	16 (9%)	12 (10%)	6 (10%)	0,961	-	-	-	-	-	-
- Bronchodilation	32 (82%)	140 (80%)	97 (82%)	46 (79%)	0,933	-	-	-	-	-	-
Asthma onset prior 12 years old	9 (19%)	43 (18%)	27 (17%)	16 (20%)	0,945	-	-	-	-	-	-
Allergic asthma	41 (85%)	204 (85%)	134 (84%)	67 (84%)	0,989	-	-	-	-	-	-
Asthma in symptomatic period	33 (69%)	145 (60%)	80 (50%)	45 (56%)	0,075	-	-	-	-	-	-
Persistent asthma	23 (48%)	68 (28%)	39 (24%)	26 (33%)	**0,016***	**0,007**	**0,002**	0,082	0,395	0,465	0,182
Symptoms presence	21 (44%)	73 (30%)	47 (29%)	22 (28%)	0,225	-	-	-	-	-	-
Rhinitis	46 (96%)	232 (96%)	159 (99%)	79 (99%)	0,175	-	-	-	-	-	-
Atopy	47 (98%)	229 (95%)	151 (94%)	76 (95%)	0,801	-	-	-	-	-	-
Food allergy	6 (13%)	36 (15%)	31 (19%)	18 (23%)	0,293	-	-	-	-	-	-
Drug allergy	1 (2%)	21 (9%)	6 (4%)	1 (1%)	**0,022***	0,220	1	1	0,052	**0,020***	0,430
NSAID vs other drugs	1 (100%)	19 (91%)	4 (67%)	1 (100%)	0,463	-	-	-	-	-	-
NSAID vs total drug allergy	1 (2%)	19 (8%)	4 (3%)	1 (1%)	**0,019***	0,216	1	1	**0,027***	**<0,001***	0,667
Allergic contact dermatitis	0 (0%)	4 (2%)	7 (4%)	3 (4%)	0,217	-	-	-	-	-	-
Comorbities	7 (15%)	30 (13%)	12 (8%)	10 (13%)	0,335	-	-	-	-	-	-
FeNO (ppb)	23,2 (45,5)	35,4 (39,1)	39,5 (61,0)	24,6 (25,3)	**0,003** / *0,499*	1 / *-*	0,177 / *-*	1 / *-*	0,695 / *-*	0,081 / *-*	**0,003** / *-*
Peripheral blood eosinophils (Eos/uL)	300 (300)	300 (200)	300 (200)	300 (200)	0,778 / *0,499*	-	-	-	-	-	-
Total IgE (kU/L)	289 (480)	209 (412)	167 (315)	182 (298)	0,511 / *0,366*	-	-	-	-	-	-

Table IV: Data is presented as n (%) and mean ± standard deviation, FEV$_1$: Forced expiratory volume, FVC: Forced vital capacity, FEF$_{25-75}$: Forced expiratory flow between 25% and 75% of the spirometry, + Bronchodilation: Variation in FEV$_1$ >12% and >200 ml in bronchodilation test, * Bronchodilation: Variation in FVC >10% and/or variation in FEF$_{25-75}$ >30% with a variation in FEV$_1$ <12% and/or <200ml in bronchodilation test, - Bronchodilation: Variation in FEV$_1$ <12% and/or <200ml variation in FVC <10% and variation in FEF$_{25-75}$ <30%, %: Percentage, *: p<0.05, **: p<0.01, ***: p<0.001, _ANCOVA_: Negative for Levene test, **Results**: **Statistically significant**.

Table 5. Asthmatic patients 40-64 years old.

	BMI <20	BMI 20-25	BMI 25-30	BMI >30	ANOVA / Kruskal-Wallis / Chi cuadrado	<20 vs 20-25	<20 vs 25-30	<20 vs >30	20-25 vs 25-30	20-25 vs >30	25-30 vs >30
Sample Size	14	123	168	107	-	-	-	-	-	-	-
Age	45,43 ± 4,18	46,98 ± 5,80	48,79 ± 6,21	48,41 ± 6,07	**0,025***	1	0,269	0,485	0,070	0435	1
Men	0 (0%)	26 (21%)	66 (39%)	43 (40%)	**<0,001***	0,071	**0,002**	**0,002**	**0,001**	**0,002**	0,882
Women	14 (100%)	97 (79%)	102 (61%)	64 (60%)	**<0,001***	0,071	**0,002**	**0,002**	**0,001**	**0,002**	0,882
Weight	50,45 ± 3,61	62,66 ± 7,86	76,49 ± 9,62	93,07 ± 12,90	**<0,001*** / **<0,001***	**<0,001***	**<0,001***	**<0,001***	**<0,001***	**<0,001***	**<0,001***
Height	162,57 ± 6,09	164,86 ± 9,19	167,10 ± 10,17	166,04 ± 9,73	0,131 / _0,433_	-	-	-	-	-	-
BMI	19,08 ± 0,78	22,98 ± 1,28	27,33 ± 1,41	33,65 ± 2,99	**<0,001*** / **<0,001***	**<0,001***	**<0,001***	**<0,001***	**<0,001***	**<0,001***	**<0,001***
FEV$_1$ (L)	2,87 ± 0,36	2,91 ± 0,69	2,98 ± 0,78	2,86 ± 0,81	0,639 / **0,036***	1	1	0,365	1	0,065	0,174
FEV$_1$ %	107,36 ± 14,31	102,27 ± 14,78	99,98 ± 16,53	96,74 ± 18,12	**0,026*** / _0,104_	1	0,639	0,140	1	0,067	0,668
FEV$_1$ Z-score	-1,02 ± 0,87	-0,88 ± 1,28	-0,61 ± 1,53	-0,80 ± 1,61	0,389 / _0,125_	-	-	-	-	-	-
FVC (L)	3,59 ± 0,46	3,79 ± 0,91	3,84 ± 1,01	3,66 ± 1,01	0,429 / **<0,001***	1	1	_0,173_	_0,366_	**<0,001***	**0,039***
FVC %	116,07 ± 12,08	112,19 ± 13,39	107,18 ± 15,75	103,00 ± 14,69	**<0,001*** / **<0,001***	1 / _1_	0,181 / _0,481_	**0,011*** / _0,042*_	**0,026*** / _0,130_	**<0,001*** / **<0,001***	0,131 / _0,126_
FVC Z-score	-098 ± 0,71	-0,62 ± 1,30	-0,44 ± 1,54	-0,68 ± 1,54	0,367 / **0,001**	1	1	_0,152_	_0,172_	**0,001**	_0,224_
FEV1/FVC (L)	79,43 ± 6,96	77,20 ± 7,05	77,95 ± 6,98	78,18 ± 7,75	0,586 / _0,081_	-	-	-	-	-	-
FEV$_1$/FVC Z-score	0,00 ± 1,42	-0,49 ± 1,04	-0,33 ± 1,02	-0,37 ± 1,17	0,330 / _0,139_	-	-	-	-	-	-
FEF$_{25-75}$ (L)	2,75 ± 0,76	2,63 ± 0,93	2,79 ± 1,07	2,72 ± 1,06	0,652 / _0,543_	-	-	-	-	-	-
FEF$_{25-75}$ %	80,43 ± 21,54	74,80 ± 24,42	77,72 ± 26,76	75,75 ± 26,70	0,726 / _0,566_	-	-	-	-	-	-
+ Bronchodilation	0 (0%)	16 (16%)	19 (15%)	14 (16%)	0,488	-	-	-	-	-	-
* Bronchodilation	0 (0%)	10 (10%)	13 (10%)	10 (11%)	0,654	-	-	-	-	-	-
- Bronchodilation	13 (100%)	74 (74%)	93 (74%)	64 (73%)	0,201	-	-	-	-	-	-
Asthma onset prior 12 years old	4 (29%)	9 (7%)	7 (4%)	1 (1%)	**<0,001***	**0,029***	**0,005**	**<0,001***	0,244	**0,022***	0,156
Asthma onset prior 40 years old	11 (79%)	80 (65%)	74 (44%)	53 (50%)	**0,001**	0,383	**0,023***	**0,049***	**<0,001***	**0,018***	0,374
Allergic asthma	10 (71%)	97 (79%)	118 (70%)	78 (73%)	0,426	-	-	-	-	-	-
Asthma in symptomatic period	10 (71%)	79 (64%)	115 (69%)	76 (71%)	0,718	-	-	-	-	-	-
Persistent asthma	7 (50%)	48 (39%)	63 (38%)	44 (41%)	0,789	-	-	-	-	-	-
Symptoms presence	6 (43%)	38 (31%)	57 (34%)	43 (41%)	0,450	-	-	-	-	-	-
Rhinitis	11 (79%)	119 (97%)	161 (96%)	99 (93%)	**0,022***	**0,024***	**0,032***	0,117	0,765	0,234	0,239
Atopy	11 (79%)	116 (94%)	151 (90%)	92 (86%)	0,095	-	-	-	-	-	-
Food allergy	0 (0%)	19 (15%)	14 (8%)	8 (8%)	0,075	-	-	-	-	-	-
Drug allergy	1 (7%)	7 (6%)	14 (8%)	12 (11%)	0,507	-	-	-	-	-	-
NSAID vs other drugs	1 (100%)	5 (71%)	10 (71%)	6 (50%)	0,552	-	-	-	-	-	-
NSAID vs total drug allergy	1 (7%)	5 (4%)	10 (6%)	6 (6%)	0,891	-	-	-	-	-	-
Allergic contact dermatitis	2 (14%)	6 (5%)	4 (2%)	2 (2%)	0,067	-	-	-	-	-	-
Comorbities	2 (14%)	13 (11%)	17 (10%)	13 (12%)	0,936	-	-	-	-	-	-
FeNO (ppb)	25,5 (47,8)	38,7 (64,9)	40,5 (51)	32,7 (37,4)	0,185 / 0,045*	1	1	1	1	**0,029***	0,474
Peripheral blood eosinophils (Eos/uL)	250 (200)	200 (275)	300 (200)	250 (200)	0,468 / _0,967_	-	-	-	-	-	-
Total IgE (kU/L)	71 (1044)	118 (168)	140 (259)	132 (161)	0,711 / _0,939_	-	-	-	-	-	-

Table V: Data is presented as n (%) and mean ± standard deviation, FEV$_1$: Forced expiratory volume, FVC: Forced vital capacity, FEF$_{25-75}$: Forced expiratory flow between 25% and 75% of the spirometry, + Bronchodilation: Variation in FEV$_1$ >12% and >200 ml in bronchodilation test, * Bronchodilation: Variation in FVC >10% and/or variation in FEF$_{25-75}$ >30% with a variation in FEV$_1$ <12% and/or <200ml in bronchodilation test, - Bronchodilation: Variation in FEV$_1$ <12% and/or <200ml variation in FVC <10% and variation in FEF$_{25-75}$ <30%, %: Percentage, *: p<0.05, **: p<0.01, ***: p<0.001, _ANCOVA_: Negative for Levene test, **Results**: **Statistically significant**.

Table 6. **Asthmatic patients >65 years old.**

	BMI <20	BMI 20-25	BMI 25-30	BMI >30	ANOVA / Kruskal-Wallis / Chi cuadrado	<20 vs 20-25	<20 vs 25-30	<20 vs >30	20-25 vs 25-30	20-25 vs >30	25-30 vs >30
Sample Size	0	7	16	11	-	-	-	-	-	-	-
Age	-	73,43 ± 5,91	71,69 ± 6,13	70,55 ± 8,09	0,683	-	-	-			
Men	-	2 (29%)	4 (25%)	7 (64%)	0,107	-	-	-	-	-	-
Women	-	5 (71%)	12 (75%)	4 (36%)	0,107	-	-	-	-	-	-
Weight	-	59,81 ± 9,18	70,56 ± 9,11	88,88 ± 12,32	**<0,001*** / *<0,001****			-	0,083 / *0,053*	**<0,001*** / *<0,001****	**<0,001*** / *0,003***
Height	-	159,43 ± 9,36	158,94 ± 9,33	160,73 ± 8,14	0,877 / *0,122*	-	-	-	-	-	-
BMI	-	23,38 ± 1,37	27,91 ± 1,26	34,57 ± 5,35	**<0,001*** / <0,001***			-	**0,012* / 0,022***	**<0,001*** / <0,001***	**<0,001*** / <0,001***
FEV$_1$ (L)	-	1,72 ± 0,66	1,88 ± 0,44	2,27 ± 0,55	0,075 / *0,390*	-	-	-	-	-	-
FEV$_1$ %	-	85,43 ± 14,47	97,50 ± 24,30	103,09 ± 17,04	0,217 / *0,047**	-	-	-	- / *0,671*	- / *0,047**	- / *0,266*
FEV$_1$ Z-score	-	-1,48 ± 1,30	-1,21 ± 0,72	-0,03 ± 1,29	**0,009** / *0,091*	-	-	-	1 / *-*	**0,024* / *-***	**0,024* / *-***
FVC (L)	-	2,34 ± 0,87	2,59 ± 0,57	3,01 ± 0,74	0,122 / *0,614*	-	-	-	-	-	-
FVC %	-	92,43 ± 12,26	106,56 ± 23,67	106,09 ± 16,95	0,267 / *0,115*	-	-	-	-	-	-
FVC Z-score	-	-1,46 ± 1,61	-0,98 ± 0,81	0,05 ± 1,33	**0,027* / *0,198*	-	-	-	1 / *-*	**0,038* / *-***	0,099 / *-*
FEV$_1$/FVC (L)	-	73,71 ± 7,68	73,31 ± 8,88	75,64 ± 4,41	0,721 / *0,217*	-	-	-	-	-	-
FEV$_1$/FVC Z-score	-	-0,42 ± 0,99	-0,49 ± 1,05	-0,29 ± 0,60	0,855 / *0,284*	-	-	-	-	-	-
FEF$_{25-75}$ (L)	-	1,44 ± 0,95	1,53 ± 0,73	1,79 ± 0,54	0,538 / *0,632*	-	-	-	-	-	-
FEF$_{25-75}$ %	-	56,29 ± 35,85	63,56 ± 29,81	66,45 ± 18,09	0,752 / *0,544*	-	-	-	-	-	-
+ Bronchodilation	-	2 (33%)	0 (0%)	1 (14%)	0,183	-	-	-	-	-	-
* Bronchodilation	-	0 (0%)	2 (22%)	1 (14%)	0,469	-	-	-	-	-	-
- Bronchodilation	-	4 (67%)	7 (78%)	5 (71%)	0,890	-	-	-	-	-	-
Asthma onset prior 12 years old		1 (14%)	0 (0%)	1 (9%)	0,350						
Asthma onset prior 40 years old	-	2 (29%)	4 (25%)	2 (18%)	0,864	-	-	-	-	-	-
Allergic asthma	-	3 (43%)	4 (25%)	9 (82%)	**0,014***	-	-	-	0,626	0,141	**0,006**
Asthma in symptomatic period	-	4 (57%)	14 (88%)	7 (64%)	0,210	-	-	-	-	-	-
Persistent asthma	-	3 (43%)	11 (69%)	5 (46%)	0,360	-	-	-	-	-	-
Symptoms presence	-	1 (14%)	7 (44%)	1 (9%)	0,096	-	-	-	-	-	-
Rhinitis	-	5 (71%)	14 (88%)	10 (91%)	0,494	-	-	-	-	-	-
Atopy	-	5 (71%)	12 (75%)	9 (82%)	0,864	-	-	-	-	-	-
Food allergy	-	1 (14%)	1 (6%)	1 (9%)	0,822	-	-	-	-	-	-
Drug allergy	-	0 (0%)	1 (6%)	2 (18%)	0,367	-	-	-	-	-	-
NSAID vs other drugs	-	0 (0%)	1 (100%)	2 (100%)	1	-	-	-	-	-	-
NSAID vs total drug allergy	-	0 (0%)	1 (6%)	2 (18%)	0,367	-	-	-	-	-	-
Allergic contact dermatitis	-	1 (14%)	0 (0%)	0 (0%)	0,137	-	-	-	-	-	-
Comorbities	-	1 (14%)	3 (19%)	1 (9%)	0,784	-	-	-	-	-	-
FeNO (ppb)	-	26,4 (41)	33,1 (39)	23,9 (27)	0,558 / *0,356*	-	-	-	-	-	-
Peripheral blood eosinophils (Eos/uL)	-	200 (250)	200 (300)	300 (250)	0,573 / *0,816*	-	-	-	-	-	-
Total IgE (kU/L)	-	76 (22)	99 (112)	156 (271)	0,053 / *0,213*	-	-	-	-	-	-

Table VI: Data is presented as n (%) and mean ± standard deviation, FEV$_1$: Forced expiratory volume, FVC: Forced vital capacity, FEF$_{25-75}$: Forced expiratory flow between 25% and 75% of the spirometry, + Bronchodilation: Variation in FEV$_1$ >12% and >200 ml in bronchodilation test, * Bronchodilation: Variation in FVC >10% and/or variation in FEF$_{25-75}$ >30% with a variation in FEV$_1$ <12% and/or <200ml in bronchodilation test, - Bronchodilation: Variation in FEV$_1$ <12% and/or <200ml variation in FVC <10% and variation in FEF$_{25-75}$ <30%, %: Percentage, *: $p<0.05$, **: $p<0.01$, ***: $p<0.001$, *ANCOVA*: Negative for Levene test, **Results**: **Statistically significant**.