Clinical and Translational Allergy

POSTER DISCUSSION PRESENTATION Open Access

PD13 - Gender differences in rhinitic children

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Gender differential effects on rhinitis are infrequently studied.

Aim of our study is to assess gender differences in host and environmental characteristics and in rhinitis severity level within the IBIM Pulmonary and Allergy Pediatric Clinic. A series of rhinitic (R) patients (September 2011 - May 2013) were investigated through standardized questionnaire and spirometry. Statistical analyses were performed with SPSS.

Preliminary results refer to 122 R patients: 77 males (M) (63.1%) and 45 females (F) (36.9%); age (years): 9.23 ± 3.42M *vs* 9.38 ± 3.02F; maternal history of rhinitis: 45.5%M *vs* 32.3%F (p<0.090); exposure to maternal smoking during pregnancy:15.6%M *vs* 2.2%F (p<0.021); exposure to passive smoke: 49.4%M *vs* 33.3%F (p<0.086); exposure to only current maternal smoke: 24.7%M *vs* 11.1%F (p<0.070); current exposure to pet: 31.2%M *vs* 15.6%F (p<0.057); exclusive breast feeding (4mos): 33.8%M *vs* 53.3%F (p<0.034); BMI (Kg/m^2):18.98±3.99M *vs* 17.95±2.94F (p<0.133); being overweight: 39%M *vs* 24.4%F (p<0.083). After stratifying by presence/absence of asthma, in those with R only (57, 46.7%): 42%M vs 53.3%F (p<0.267);VAS (mean±s.d.): 8.18±1.46 M *vs* 7.60±1.71F (p<0.099); PSQI (mean±s.d.): 2.33±1.53M *vs* 1.44±0.73F (p<0.009); FVC (%Pred) (mean±s.d.): 98.14±10.51M *vs* 103.27±7.83F (p<0.068); in those with rhinitis and asthma (RA, 65. 53.3%): 57.1% M *vs* 46.7%F (p<0.267); asthma severity level: intermittent, 32.5%M *vs* 11.1%F (p<0.008); moderate persistent, 9.1%M *vs* 15.6%F (p<0.063); rhinitis severity level: mild persistent 33.8% RA *vs* 17.5% R-only (p<0.041);VAS (mean±s.d.): 6.91±1.57 M *vs* 8.50±1.68F (p<0.010); food allergy 36.4%M *vs* 4.8%F (p<0.008).

In conclusion, we have shown in a consecutive series of rhinitic patients that male gender is mainly associated with more frequent exposure to environmental and parental risk factor, burden of disease, pulmonary function tests and co-morbidity, but also with less severe rhinitis level. Further analyses on a larger series of pediatric patients are needed in order to assess the impact of gender differences on rhinitis management.

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