422. Respiratory epidemiology: prevalence, incidence and remission

P4130 Late-breaking abstract: Allergic sensitization to common airborne allergens among adults in urban and rural northern Vietnam: Results from a population survey
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Background: The profile of allergic sensitization and its association with allergic diseases varies between different areas of the world.

Objective: To study allergic sensitization and the association with asthma and allergic rhinitis in the northern part of Vietnam.

Methods: A sample of 1500 subjects, aged 21–70 years were randomly selected from all 5782 responders of a questionnaire survey performed in 2007-2008. The subjects underwent a structured interview, a skin prick test with 10 common local indoor and outdoor allergens. Further, lung function and methacholine test were performed. The questionnaire used was the GA2LEN study questionnaire which is mainly based on the ECRHS and the ARIA questionnaire with additional questions from Swedish OLIN questionnaire.

Results: Of 533 subjects attending the skin prick tests, 180 subjects (33.8%) had positive SP tests to at least one allergen. Mite and cockroach were the most common sensitizers in northern Vietnam (26.1%; 13.2%) and they strongly associated with allergic rhinitis. Young age, men sex and occupational exposure to gas, dust and fumes were risk factors for sensitization, particularly to mites and cockroach. Airway hyper-reactivity (AHR) to methacholine at doses ≤2 mg/ml was statistically significant associated to multi-sensitization.

Conclusions: The prevalence of allergic sensitization was 33.8% and was strongly associated with allergic rhinitis. Young subjects were at higher risk of becoming sensitized to mites, while male sex was a risk factor for sensitization to cockroach. Storage mite, house dust mite and cockroach were the most common sensitizers in both rural and urban northern Vietnam.
considered in remission if a subject did not report any asthma-like symptoms or drug use in the last 12 months. Either at baseline or follow-up, asthma was considered in remission if a subject did not report any asthma-like symptoms. Fifty-seven respondents or drug use in the last 12 months. Either at baseline or follow-up, asthma was considered in remission if a subject did not report any asthma-like symptoms. Fifty-seven respondents or drug use in the last 12 months. Either at baseline or follow-up, asthma was considered in remission if a subject did not report any asthma-like symptoms. Fifty-seven respondents or drug use in the last 12 months. Either at baseline or follow-up, asthma was considered in remission if a subject did not report any asthma-like symptoms. Fifty-seven respondents or drug use in the last 12 months. Either at baseline or follow-up, asthma was considered in remission if a subject did not report any asthma-like symptoms. Fifty-seven respondents or drug use in the last 12 months. Either at baseline or follow-up, asthma was considered in remission if a subject did not report any asthma-like symptoms.
Objectives: The objective of this epidemiological study was to assess the prevalence and burden of COPD, chronic bronchitis and smoking in eleven countries (Algeria, Morocco, Tunisia, Egypt, Jordan, Lebanon, Saudi Arabia, Syria, UAE, Pakistan and Turkey).

Methods: A general population sample of 10,000 subjects ≥ 40yrs in each country was generated from random phone numbers. A structured interview was proposed to all subjects by telephone. Screening questions, including history of cough and spumon production, was used to identify subjects with chronic bronchitis. Individuals who smoked ≥ 10 pack-yrs and who had either chronic bronchitis or a previous diagnosis of COPD were considered to be possible COPD. In a subset of the study sample, assignment of COPD was confirmed by spirometry. This interim analysis assesses the prevalence of chronic bronchitis.

Results: Of 118,039 subjects contacted, 44,892 were interviewed. 978 subjects reported having symptoms of chronic bronchitis. This corresponds to a prevalence of chronic bronchitis of 2.2% (95% CI: 2.0-2.3%), ranging from 0.6% (95% CI: 0.4-1.0%) in UAE to 2.9% (95% CI: 2.1-3.7%) in Algeria. The prevalence of chronic bronchitis was higher in women (2.4%, 95% CI: 2.2-2.6%) than in men (1.8%; 95% CI: 1.6-2.0%). Prevalence increased with 1.6% in subjects aged 40-49yrs, 2.2% in those aged 50 to 59 yrs and 3.0% in those aged ≥ 60 yrs.

Conclusion: The prevalence of chronic bronchitis in the Middle East and North Africa seems to be lower compared to other regions of the world.

P4143 Chronic obstructive pulmonary disease in smokers with asthma
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Aim: To find out what the prevalence of COPD among smokers with asthma is.

Material: The study included 154 asthmatic patients - 46 (29.9%) men and 108 (70.1%) women, aged between 40 and 69 years, all of them current or ex-smokers. The patients did spirometry and filled in a specially designed respiratory questionnaire.

Results: Spirometric criteria for COPD were found in 29.9% of all patients, in 24.5% of female and 43.5% of male patients (p=0.02). The prevalence of COPD was 23.2% amongst patients aged between 40 and 50 and 32.3% in patients above 50 (p=0.01). COPD was found in 6.1% of patients with less than 20 pack-years and in 56.2% in patients with ≥ 20 pack-years (p=0.001). More current smokers had COPD than ex-smokers - 38.2% vs. 20.5% respectively (p=0.05). The risk for COPD in smokers with asthma was OR = 15.7 (95% CI: 3.8 - 64.5).

Conclusions: One third of the current/former asthmatic patients above the age of 40 years reported smoking. COPD prevalence was significantly higher in males and in older patients and depends on the pack-years.

P4140 COPD heterogeneity: An epidemiological perspective from the PLATINO study
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PLATINO offers an opportunity to characterise COPD heterogeneity in a population-based multicenter study. 759 COPD and 4,554 non-COPD individuals who smoked ≥ 10 pack-years were included. Prevalence of COPD was significantly higher in males vs females, overweight vs normal weight and smokers vs non-smokers (p<0.01).

Conclusion: Although COPD is a leading cause of worldwide disability and mortality it remains greatly underestimated in primary health care in Russia. The aim of this study is to provide estimates of the prevalence of COPD in Russia in relation to patterns of cigarette smoking and environmental conditions.

Methods: Subjects aged 35-64 (N=3771; RR=81%) randomly selected participants within countries. There are only three local epidemiological studies on COPD prevalence within the region was supplied by six family physicians. 400 subjects from each family physician were randomly selected from electronic data base. Interviews were made by researchers face to face. The questionnaire consist of demographic and socioeconomical variables, the history items of dyspnea, cough, sputum and smoking habits.

Results: Spirometry was performed with Vitalograph ALPHA. COPD defined as a history of dyspnea, cough or sputum production, and post-bronchodilator FEV1/FVC< 70.

Conclusion: Although results are consistent with the literature, our study revealed a lower prevalence than other two epidemiological studies in Turkey those used spirometry in diagnose. Low levels of smoking prevalence and rural area might be effective in low prevalence.

P4142 Prevalence, relation to smoking and other factors of COPD: Evidence from population survey
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The prevalence of COPD in Russia remains greatly underestimated in primary health care in Russia. The aim of this study is to provide estimates of the prevalence of COPD in Russia in relation to patterns of cigarette smoking and environmental conditions.

Methods: Subjects aged 35-64 (N=3771; RR=81%) randomly selected participants from multicentre population based epidemiological study in three Russian regions with different environmental conditions were included in the analysis. Chi-squared tests and odds ratios (OR) were used. The prevalence of COPD was revealed in 12.9% of men and 15.7% of women, whereas only 50.9% of those were ever told to have any respiratory diagnosis (p<0.001). COPD is strongly related to smoking intensity. It is 10.5 times more likely to be related to heavy smoking in men (OR=10.5, 95% CI 5.4-19.2) and 5 times women (OR=5, 95% CI 2.8-8.8), but also with moderate smoking (OR=4.4, 2.9-6.7) and even ex-smoking (OR=2.6, 1.8-3.8), low (OR=2.6, 1.8-3.8) and self-reported ex-smoking (OR=3.06, 1.9-4.9) with short quitting history. No significant relation to intention to quit revealed. Significant relations of COPD to environmental conditions are observed: with stronger relationships to regions with severe climate conditions in Russian Far East close to Polar Circle (OR=2.9, 95% CI 2.2-3.9), and Heavy Industrial region: (OR=2.2, 1.6-3.0). COPD is common among adults in Russia and is mainly undiagnosed. It is strongly associated to smoking and higher cigarette consumption, but also to living area which requires further investigation.

P4143 Smoking rates in the Middle-East and North Africa: Interim results of the BREATH study
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Conclusion: COPD prevalence varies across countries and different groups of population in the Middle East and North Africa. There were three local epidemiological studies on COPD prevalence among Turkish population. COPD diagnosed by spirometry in two of them.

Aim: To determine COPD prevalence using spirometry and symptom based criteria in in the Middle East and North Africa.

Methods: The Middle East Study was a cross-sectional study conducted in May and June, 2010. Study population was inhabitants of 21000 people in Yigilca. Health service of the region was supplied by six family physicians. 400 subjects from each family physician were randomly selected from electronic data base. Interviews were made by researchers face to face. The questionnaire consist of demographic and socioeconomic variables, the history items of dyspnea, cough, sputum and smoking habits. Spirometry was performed with Vitalograph ALPHA. COPD defined as a history of dyspnea, cough or sputum production, and post-bronchodilator FEV1/FVC< 70.

Results: A total of 2289 subjects (1471 female, 827 male with a mean age of 50) were interviewed. Spirometry was performed in 1468 of 2298 participants. COPD prevalence for adults and adults aged ≥40 years old were 4.9% and 6.7%, respectively. Post-bronchodilator FEV1/FVC< 70 were detected in 7.4% of 1468 participants. Sixty five percent of the study population (1495 subjects) had never smoked. Crude smoking rate of the population was 17%.

Conclusion: Although results are consistent with the literature, our study revealed a lower prevalence than other two epidemiological studies in Turkey those used spirometry in diagnose. Low levels of smoking prevalence and rural area might be effective in low prevalence.
P4146 Epidemiology of smear-negative pulmonary tuberculosis in Sardinia (Italy) from 2000 to 2009: Role of ex-adiuvantibus treatment

Introduction: The percentage of smear-negative tuberculosis (TB) cases is on the increase worldwide. In Sardinia, Italy, the smear-negative TB cases have been diagnosed in 10.3% (2000-2003) and 21.1% (2004-2009). The aim of this study was to evaluate the epidemiological characteristics of smear-negative TB cases and to identify risk factors associated with tuberculosis treatment failure.

Methods: All smear-negative pulmonary TB cases notified in Sardinia from 2000 to 2009 were included in the study. We compared the characteristics of smear-negative and smear-positive TB cases and analyzed the risk factors associated with drug resistance.

Results: A total of 849 smear-negative TB cases were notified in Sardinia from 2000 to 2009. The smear-negative TB cases were more common in males (58.2%) and in the age group of 25-64 years (68.4%). The smear-negative cases were more likely to be associated with drug resistance (p < 0.05) and to have a longer treatment duration (p < 0.05). The risk factors associated with drug resistance included a history of previous TB treatment (OR = 2.3, 95% CI: 1.4-3.8), a history of drug use (OR = 2.1, 95% CI: 1.2-3.6), and a history of imprisonment (OR = 3.4, 95% CI: 1.9-6.2).

Conclusion: The smear-negative TB cases in Sardinia are more likely to be associated with drug resistance and to have a longer treatment duration. These results highlight the need for improved TB control strategies and for the implementation of more effective drug resistance screening and treatment protocols.
different equations, it is possible that COPD staging would change when different
equations are used.

Objectives: To compare the results of some commonly used spirometry reference
equations with the one derived from the PLATINO equation in all patients with
COPD from the PLATINO Study; to evaluate the possibility of changing the
patient predicted value considering the cut off point as 50% of FEV$_1$ predicted
value when the different equations are used.

Material and methods: Out of the 5315 individuals evaluated in the PLATINO
sample, 759 (52.3% male) of them had COPD according to GOLD criteria. Com-
parison of staging was performed using the FEV$_1$ in percentage of predicted in
each equation, considering the percentage expected from the PLATINO equation
as reference.

Results: We evaluated 759 patients with COPD, observing staging changes in
29.4% in relation to the difference equations, being Knudson et al., Crapo et al.
and Pereira et al. 2007 equations that showed the greatest number of changes.

Conclusion: Overall these reference equations tested may be applied indistinctly
for predicting the spirometry values, although we should reinforce that some of
them, like Knudson et al. and Crapo et al., may decrease disease severity, while
Pereira et al. 2007 increases the severity, when considering only the percentage
of predicted values. These results call to attention the importance of following up
patients with COPD by the absolute value of their FEV$_1$ and suggest that only one
equation should be used during the treatment of the same patient so as to avoid
alterations in the treatment.