

Aim of the study. To evaluate the immunogenicity of influenza tetravalent inactivated subunit adjuvant vaccine in healthy adults and in patients with common variable immune deficiency.

Materials and methods. In a single-center, open-label, non-randomized, prospective, cohort, controlled study before the flu season 2018-2019 were involved 32 healthy volunteers aged 18-50 years and the comparison group which consisted of 6 patients with a confirmed diagnosis of common variable immune deficiency (CVID). All patients received 1 dose (0,5 ml) of the first Russian quadrivalent inactivated subunit vaccine (IIV4) with a decreased amount hemagglutinin protein (20 mkg of influenza H-antigens instead of 60 mkg in standart non-adjuvant IIV4 in the world) due to the use of azoximer bromide (500 mkg per dose). The antibody levels against the influenza type A viruses (H1N1 and H3N2) and two type B viral cell lines (B/Yamagata and B/Victoria) were evaluated using a hemagglutination inhibition reaction. The seroprotection, seroconversion, geometric mean titer rates, CD-subpopulations (CD3+, CD4+, CD8+, CD16,56+, CD19+, CD21+) and expression of toll-like receptors 3, 8, 9 were analyzed.

Results. Adjuvant IIV4 in healthy adults elicited comparable immune response for matched 4 influenza strains with explored non-adjuvant IIV4 in the world. Patients with common variable immune deficiency failed to form a protective humoral immune response to adjuvant IIV4 although CD-subpopulations and expression of toll-like receptors 3, 8, 9 were similar to healthy controls that may indirectly indicate the possibility of the formation of cellular immunity in response to vaccination in these patients.

Conclusions. The use of adjuvant IIV4 allows to form protection against 2 circulating influenza B lineages without reduction of the immunogenicity in relation to influenza strains type A. To evaluate the effectiveness of the influenza vaccine in patients with PID it is necessary to study other mechanisms of the development of a postvaccinal immune response.

Key words: tetravalent inactivated influenza adjuvant vaccine, CVID, vaccination

340. TRAVEL MEDICINE, TRAVEL-RELATED DISEASES AND REQUIRED VACCINES

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Introduction. Tourism is an important socioeconomic phenomenon in continuous development. Every traveler is exposed to nearly all infectious risks which may occur during his travel time. Some of the main risk factors can be temperature, water quality, high humidity and the exposure to multi-resistant microorganisms. However, studies suggest that very few people seek health advice prior to travel.

Aim of the study. This study was conducted to determine the level of knowledge, attitudes and practices of medical students in the field of travel medicine.

Materials and methods. A cross-sectional study was conducted between October and November 2019, using a self-administered questionnaire. The 345 students who took part in this study were enrolled in 5th or 6th year of general medicine program, in different medical centers from Romania and they have traveled abroad at least once in their lifetime. The data were analyzed using the statistical program SPSS (Statistical Package for Social Sciences). We used the Chi square test to identify differences in knowledge, attitudes and practices between students. Differences with a value of $p \leq 0.05$ were considered statistically significant.

Results. 96.2% seek information related to the travel destination, but the health field occupies only 6.2% of the respondents' interest. 55.7% do not seek information on infectious diseases related to the visited-region, the main reason being the conviction that they are not at risk of contracting a disease during the trip. 44.3% sought such information, the main source being the internet. 64.7% believe that vaccines provide basic protection, 29.1% that they are safe, 4.9% consider they are not needed, and 1.2% believe they have adverse effects. Both vaccinated and unvaccinated respondents feel they should be more informed about the health risks associated with their travel destination.

Conclusions. This study has shown an inadequate level of medical students knowledge and poor utilization of travel medicine services. Those who have received advice on minimizing health risks during travel, including the risk for infectious diseases, and the opportunity for relevant vaccination and chemoprophylaxis, tend to practice more frequently preventive measures prior to an international travel. This study recommends the development of a well-structured travel medicine service with the needed educational promotional strategy.

Key words: travel, students, infectious diseases, prophylaxis

341. THE MEDICAL-SOCIAL IMPACT OF PREMATURE BIRTHS

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Introduction. Premature birth is a major problem of contemporary obstetrics, but also of public health, whose incidence is increasing in the developed countries. Pregnancy duration, fetal body weight, physical and neurological condition are directly correlated with mortality rate and comorbidities of premature babies.

Aim of the study. Evaluation of the incidence, risk and medico-social impact of premature births in dependence on body mass and gestational age.

Materials and methods. As study material of premature births served statistics of years 2016-2019, the risk factors and causes of morbidity and mortality in newborns. Were questioned 52 children over one year old, born prematurely.

Results. Several risk factors were detected, the most important being prematurity. The medico-social impact of preterm births is highlighted in the perinatal period by the high mortality of the newborns. With advancing age, the negative impact is diminished. After the age of one year, the risks of preterm babies do not have a statistically significant difference with those born at term.

Conclusions. Premature births have multifactorial etiology. The medico-social impact of premature births is enhanced by morbidity and mortality in the perinatal period.

Key words: Premature birth, Risk factors, Death rate, Morbidity