МІНІСТЕРСТВО ОСВІТИ ТА НАУКИ УКРАЇНИ
СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ
МЕДИЧНИЙ ІНСТИТУТ

АКТУАЛЬНІ ПИТАННЯ ТЕОРЕТИЧНОЇ ТА КЛІНІЧНОЇ МЕДИЦИНИ

Topical Issues of Theoretical and Clinical Medicine

ЗБІРНИК ТЕЗ ДОПОВІДЕЙ
V Міжнародної науково-практичної конференції студентів та молодих вчених
(м. Суми, 20-21 квітня 2017 року)

Суми
Сумський державний університет
2017

level of infant mortality (up to 15,8%), absence of specific prevention medications and casual treatment, capability of virus to persist for a long time in human organism, tendency to the palindromic and chronicity of disease.

Aim - study and research clinic-epidemiological features of infectious mononucleosis clinical course in the north-eastern region of Ukraine.

Materials and methods. There were 122 infectious mononucleosis cases, which were hospitalized in 2012-2014 in the Sumy regional infectious clinical hospital n. a. Z. Y. Krasovytskyi. The diagnosis "infectious mononucleosis" was made on the grounds of epidemiological and clinical data, results of additional laboratory and instrumental examination techniques according to the common criterions clinical practice.

Results. The distribution by gender: women - 66 (54.1%) men - 56 (45.9%) of which 85 patients were hospitalized between the ages of 18 and 39 (69.7%),33 patients (27%) - from 40 to 60 years, and 4 patients (3.3%) - aged 60. Among hospitalized patients urban population prevailed at 75.4% (92 persons), while the rural population occupied only 24.6% (30 people). The vast majority of IM patients was an indication of contact with such infectious patients - 103 of the all 122 patients (84.4%), while concerning the last 19 patients (15.6%) is unknown. The disease often had intermedius severity in 90(73.8%) IM patients. It was light course in 30 patients (24.6%), and severe course was observed in only 2 patients (1.6%).

Conclusion. Incidence for infectious mononucleosis in the North-Eastern region of Ukraine is high and has increasing tendency and often affects children and young people.

RELEVANCE OF SICKLE CELL ANAEMIA AND ITS PROTECTION AGAINST MALARIA IN AFRICAN CHILDREN

Okoye C.D.
Supervisor: PhD Ilina V.V.
Sumy State University, Department of Infectious Diseases and Epidemiology

Introduction. Sickle cell anaemia, an autosomal recessive disease caused by a single point mutation in nucleobase sequence of chromosome 11 with substitution of glutamic acid by valine and formation of HbS. Malaria on the other hand is an infection caused by a parasite (Plasmodium sp) that is transmitted to humans by female anopheles mosquito and is prevalent in tropical and subtropical regions of Africa due to increased rainfall, constant high temperatures and high humidity.

Aim - to understand the peculiarities of Sickle cell anaemia in children with Malaria in Africa.

Materials and methods. About 356 articles and epidemiological studies have been studied including a research that was carried out in a village (Orlu) in Nigeria over two years and included 621 children—450 of whom were positive for P. falciparum at the beginning of the study and 171 were negative.

Results. From the study, of the 450 children positive for P. falciparum, 300 were heterozygous for sickle cell gene (AS) while 150 were homozygous (SS). Of the heterozygous children, only 75 contracted severe clinical form of malaria while 225 endured mild and moderate clinical forms. Of the homozygous children, 110 contracted severe clinical forms of malaria with death occurring in 60 of them while 25 children endured moderate forms which were managed with aggressive therapies. Translocation of Sickle cell Erythrocyte MicroRNA into Plasmodium falciparum inhibits parasite translocation and contributes to Malaria resistance as individuals with three microRNAs (miR-223, miR-451, let-7i) that are effective in reducing P.falciparum growth and replication and the later two are increased in HbAS and HbSS than in HbAA individuals, giving HbSS and HbAS individuals genetic advantage.

Conclusion. From the above research, though it's still under further investigations, it can be deduced that HbAA individuals with SS gene are at a higher risk of being predisposed to severe forms of malaria as compared to HbAS and Hb SS individuals with AS gene.So sickle cell anemia confers a protection against high susceptibility to malaria in children with AS gene.