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Incidence of meningococcal disease in children in Astana city

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Purpose: The main aim of present study is to evaluate the clinical and epidemiological features of meningococcal disease in children under the age of 14 in Astana for 2015.

Methods & Materials: It is carried out the retrospective analysis of 109 cases with diagnosis of meningococcal disease, observed at the Municipal Children's Infectious Hospital, Astana, for 2015. For statistical analysis used program SPSS Statistics 20.

Results: Among children <14 years noted rising of the incidence of meningococcal infection in Astana in 2015. The high incidence of MI was registered in the spring (69.4%, $p \leq 0.05$), while in the winter and summer periods noted significantly lower incidence, 15.6% and 12.8% respectively. In the analysis of anamnesis, the most incidence is registered in children <5 years: from 1 month up to 1 year 18.3%, 1-2 years old 24%, 2-5 years old 34.8%, whereas in children aged 5-10 years old, the incidence rates were 16.5%, 10-14 years 6.4%. It should be noted, the incidence among male children is much higher, 68.8% of all observed patients are boys ($p \leq 0.05$).

Determined, meningococcal meningitis without meningococemia occurs in 1% of cases and meningococcal meningitis combined with meningococemia occurs in 40.7%, meningococcal meningoencephalitis combined with meningococemia occurs in 4.6%, meningococemia in 54% of cases. Bacteriological investigation were performed in 91% of cases, and in other cases, the diagnosis was based on clinical data. Bacteriological method defined the prevalence of serotype A 78.3%, serotype B were detected in 4.9%, serotype C in 13.7% of patients.

Conclusion: Incidence of MI in 2015 was more occurred in children younger than 5 years (77%), among patients predominated males 68.8%, among clinical forms most often recorded meningococemia 53.7%, among serotype landscape often recorded serotype A 78.3%. Routine vaccination against meningococcal infection in the Republic of Kazakhstan is not applied.

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Association of genetic polymorphism of the DNA base excision repair gene (APE-1 Asp/148 Glu) and HPV type (16/18) with the risk of cervix cancer in north Indian population

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Purpose: Cervical cancer is one of the most common neoplastic diseases affecting women, with a combined worldwide incidence of almost half a million new cases. Polymorphisms in DNA repair genes may contribute the genetic instability and carcinogenesis.

Methods & Materials: Cervical tissue derived from patients with cervical cancer ($N = 138$) and non-cancer controls ($N = 180$) were taken under informed consent. Genotyping for APE-1 Glu 148 Asp polymorphism was performed by a PCR-CTPP as well as HPV type 16 and 18 was amplified by multiplex-PCR.

Results: It has been observed that Asp/Glu with Glu/Glu genotypes that combined we observed statistically significant with protective effect for developing of cervix cancer (OR=0.51, 95% CI 0.31-0.83, $p=0.006$). The combined Asp/Glu with Glu/Glu genotypes who were using oral contraceptives were shown to be statistically significant with reduced risk of cervical cancer (OR=0.22 95% CI=0.11-0.47, $p=0.0002$). It has been suggested that significantly correlation between HPV 16 and users of oral contraceptives in certain APE-1 genotypes with reduced risk in developing cervix cancer.

Conclusion: We observed statistical significant association with reduced risk of cervix cancer in APE-1 with different genotypes, though, on the other hand, in association between HPV type 18 and those having SCC highly increased risk of cervical cancer was observed.

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Microhematospermia in acute Zika virus infection

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Purpose: Zika virus (ZIKV) spreads to people primarily through the bite of infected Aedes mosquitoes. Nevertheless, prolonged presence of ZIKV and/or its components in semen of acutely infected patients has been well established, raising the possibility of sexual transmission as an alternative mechanism of infection.

Hemospermia or blood in the semen, has been documented in some of the cases where sexual transmission of ZIKV is a point at issue, but its prevalence remains unknown, as the condition is usually asymptomatic and may go unnoticed. Moreover, the occurrence of microhematospermia in patients with acute ZIKV infection has not been established.

Methods & Materials: Sequential samples, urine and semen were collected in three patients with uncomplicated symptomatic acute ZV infection. The medical questionnaire revealed no signs of urinary tract infection, prostatitis, urethritis, or cystitis, and urinalysis showed no abnormalities. IgM Capture ELISA tests for dengue and Chikungunya viruses (NovaTec Immundiagnostica, Dietzenbach, Germany), were negative. Initial plasma samples and