

to humans through cats, but rodent pets may also lead to increase animal-to-human transmission for which there is a risk of generalized infection in atopic or immunodeficient persons. This CPXV outbreak highlights a new risk from these new pets as already observed during the US 2003 outbreak of monkeypox virus transmission-to human from prairie dogs.

#### PI-5

##### **The seropositivity of HBV, HCV, HIV among blood donors in Istanbul, Turkey**

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**Background:** To determine the prevalence of Transfusion Transmitted Infections (TTIs) – Hepatitis B Virus (HBV), Hepatitis C Virus (HCV) and Human Immunodeficiency Virus (HIV) – and also their serological markers. Following this evaluation, the study gives an idea about the ratio of the infected blood donor population, epidemiology of these infections in the community and consequently the safety of the collected donations for further studies.

**Methods:** The retrospective study was carried out from January 2007 through December 2008 among 23048 volunteered blood donors at the Haseki Training and Research Hospital in Istanbul, Turkey. All the donors were tested for antibodies against HCV and HIV, hepatitis B surface antigen (HBsAg) by using ELISA technique.

**Results:** HBsAg was found positive in 2.03% (469) of all donors, whereas the anti-HCV and anti-HIV ratios were 0.27% (63 donors) and 0.07% (17 donors) respectively. In addition, Western Blot test positive was found in 5 of the 17 blood donors with positive anti-HIV.

**Conclusions:** Although HBV and HCV seropositivity rates among volunteered blood donors are similar to our country results, higher HIV seropositivity rate has been found. This may be explained by that, our patient population constituted of sex workers (particularly travesties), foreigners and IV drug users is probably higher compared to other regions of the country.

#### PI-6

##### **West Nile virus (WNV) seroprevalence in blood donors from Central Anatolia**

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West Nile virus (WNV) is a mosquito-borne neuropathological flavivirus that is indigenous to Europe, Asia, Africa, Australia, and the Middle East. WNV was first isolated in United States in 1999, and has since spread rapidly in the continent, becoming an important public health problem. In Turkey, data on WNV presence, distribution and possible human infections are limited. In this study, supported by Hacettepe University Research Fund and Turkish Red Crescent Society, WNV exposure in blood donors from Central Anatolia was investigated. A total of 2516 sera, collected after informed consent from blood donors at 4 major branches (Ankara, Konya, Eskişehir and Zonguldak) of Turkish Red Crescent Middle Anatolia Regional Blood Center have been evaluated by a commercial WNV IgG ELISA (Anti-West Nile Virus ELISA (IgG), EuroImmun, Germany). Positive and borderline samples were further investigated by commercial WNV IgG IFA assays (Anti-West Nile virus IgG IIFT, Flavivirus Profile II (IgG), EuroImmun, Germany). Antibody specificity was confirmed by Plaque Reduction Neutralization Assay (PRNA). A total of 25 samples (25/2516; 0.99%) were reactive in ELISA or IFA assays where 14 (14/24; 58.3%) could be confirmed by PRNA. The confirmed seroprevalence of WNV was observed to be 0.56% (14/2516) in blood donors from Central Anatolia. These results support the evidence that WNV activity is present but further studies are required to fully appreciate the impact of WNV infections in Turkey

#### PI-7

##### **The measles in Poland in period 2004–2009**

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The national laboratory located in Dept. of Virology NIPH-NIH is responsible for confirming all suspected measles cases in Poland using validated IgM

assays and for collection and sending specimens of measles virus for genotyping to a regional reference laboratory.

In the absence of measles vaccination epidemics of measles occur every 2–3 years and usually last two or three months. Outbreaks last longer where family size, and hence the number of household contacts, is large. In countries with relatively high vaccination coverage levels outbreaks usually have five to seven years interepidemic periods. The introduction of measles vaccine in Poland in the 1974 (the first dose of measles vaccine is delivered after 12 months of age) and revaccination (started in 1992 – in 7 years age children), resulted in a marked decrease in the number of reported measles cases. In the years 2004 and 2005 only 11 and 13 measles cases were detected countrywide. In 2006 number of confirmed measles cases increased to 120 and after same decreasing in 2007 (26 cases) stabilized in 2008 (63 cases) and 2009 (47 cases to 16.06.2009). The genotypes changed in time. In 2006 D4 and D6 (probably local) genotypes were observed, in 2007 imported D6 (Ukraine like) and in 2008 – D4 genotype (also imported). Infected patients belong to 3 different group. 1) children below 13 month of age, 2) unvaccinated partially belonged to small but very mobile ethnic group and 3) person obtained only one dose of vaccine (partially between 7–10y of age).

#### PI-8

##### **Vaccine induced and naturally acquired antibodies against mumps virus**

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Finland has a 25 year long history of MMR vaccinations and indigenous measles, mumps and rubella have been eliminated for almost 15 years. Due to this the immunity against mumps in an increasing proportion of the Finnish population is based solely on vaccinations.

Humoral immunity to mumps virus was examined in a MMR vaccinated group A (21–22-year-olds, N=41), and a non-MMR vaccinated, potentially naturally infected group B (50–59-year-olds, N=39). Anti-mumps IgG antibodies were measured using a EIA method and the amount of neutralizing antibodies was examined to three genotype A mumps virus strains (Jeryl Lynn and Enders vaccine strains and a wild-type Fin-1964 strain) and two genotype D strains (a wild-type Fin-1969 strain and a Russian vaccine strain).

Group B had significantly higher ( $p=0.001$ ) anti-mumps IgG antibody titers than group A ( $1175 \pm 1936$  and  $378 \pm 381$ , respectively). The seropositivity rate was also higher group B than A (36/39 (92%) and 30/41 (73%), respectively). Majority of the IgG negative individuals in the study had neutralizing antibodies against some mumps virus strain. Neutralizing antibody titers to both the Enders and Fin-1969 strains were equally high in group A, whereas group B had highest titers against the Fin-1964 strain.

MMR vaccination seems to induce neutralizing antibodies not only to the genotype A mumps viruses but also to a genotype D mumps wild type virus. It seems that neither vaccination nor natural mumps infection gives protection to all various types of mumps viruses and therefore reinfections with other/different mumps virus strains are possible.

#### PI-9

##### **Prevalence of feline coronavirus in a university animal hospital: a 10-year retrospective analysis**

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Feline coronavirus (FCoV) infection in cats varies greatly from causing subclinical or mild enteritis to fetal feline infectious peritonitis (FIP). During 2000 to 2009, a total of 1853 cases with a history of FIP-suspected cats from National Taiwan University Animal Hospital were subjected to this study. Clinical specimens including whole blood, body effusion, rectal swabs, oral swabs and conjunctival swabs were collected and examined by a nested RT-PCR assay. FCoV RNA was detected from 697 (37.6%) cats. Among various clinical specimens, ascites appeared to be the specimen with the highest detection rate (67.8%, 156/230), followed by pleural effusion (49.3%, 73/148), rectal swabs (39.6%, 311/786), whole blood (16.1%, 260/1612), oral swabs (10.3%, 31/300) and conjunctival swabs (9.7%, 48/494). Among the 51 histopathologically confirmed cases of FIP, the highest incidence was found in kittens under one-year old (74.5%, 38/51) and no gender prevalence was noted. The tendency for effusive disease (76.5%, 39/51) was higher than non-effusive (23.5%, 12/51) in our FIP cats.