Conclusions: The larval-nymphal synchrony seems to be a prerequisite for the TBEV to be maintained and amplified in nature, and consequently transmitted to humans; this can be explained by the very short period of TBEV infectivity in the rodents (2–4 days) - main reservoirs for TBEV. This synchrony is generated by a faster cooling of air temperatures in autumn and an earlier onset of larval activity in the following year.

doi:10.1016/j.ijid.2008.05.891

49.025

Seropositivity Among Human Subjects for Both TBEV and Borrelia burgdorferi s.l. During a TBE Outbreak in Sibiu County, Romania

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Background: The tick Ixodes ricinus is the main vector of both tick-borne encephalitis (TBE) virus and Borrelia burgdorferi sensu lato in Eurasia. Borrelia burgdorferi is the cause of Lyme borreliosis, and TBE is a biphasic meningoencephalitis induced by an arbovirus belonging to the flavivirus family. The principal aim of the current investigation is to estimate the TBEV-Borrelia burgdorferi s.l. coinfection in human subjects from a TBE outbreak in Sibiu County, Romania.

Methods: Sera and cerebrospinal fluid from 51 patients hospitalized during the TBE outbreak were examined with hemagglutination-inhibition and ELISA techniques for TBEV, and with ELISA test for Borrelia burgdorferi s.l.

Results: Among the 51 TBE suspect patients, 38 had antibodies against TBEV. Patients that came out positive showed different symptoms: meningoencephalitis, flu-like syndrome and meningitis. Two of these patients had IgG antibodies against Borrelia burgdorferi too. So there was only 5% of the TBE sick patients that came in contact with Borrelia burgdorferi also.

Conclusion: Considering the results, our assessment is that the two pathogens antibodies coexistence in such a low number of patients is not consistent with coinfection following tick bite. Also, considering the fact that the overall incidence of TBEV in ticks is 0.5–2% and that of Borrelia burgdorferi s.l. can reach values as high as 36%, the investigated TBE outbreak is more likely to have occurred from unpasteurized dairy products' consumption, conclusion which is sustained also by the observation that in the outbreak area intensive shepherding is practised.

doi:10.1016/j.ijid.2008.05.892

49.026

Boutonneuse Fever Issusess in Constanta County

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Introduction: Boutonneuse fever is an eruptive disease endemic in Mediterranean basin. Constanta, remain the most important rickettsian endemic zone because the climacterics conditions and the increased number of stray dogs.

Material and methods: The diagnostic was made on clinical and epidemiological dates.

Results: 80% of patients recognized the presence of the dog, and 45% the bites or presence of the ticks. 78% of cases were from urban environment. The adults were prevalent affected 86%, 2:1 for women, children made easy form and the adults’ medium. Few cases were severe, with neurological complications. The clinical evolution of the patients with treatment was favorable, improvement of the illness appeared after 3–4 days. The number of cases continuously increases until 2001, the situation of cases with Boutonneuse fever during last 17 years is described in the graph.

Conclusions: The monthly distribution of this disease reflects seasonality of this affection, according with maximum period of thick spreading and human contact with them. The year 2001 as 2000 register in June, especially July and August the pick of morbidity, according to period of maximum spread of ticks and human contacts with them and for these years temperatures were over the multiannual average.

doi:10.1016/j.ijid.2008.05.893

49.027

Outbreak of Leptospirosis in Children After Tropical Storm in the Dominican Republic


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Background: Leptospirosis is considered one of the most important emerging infectious diseases. Increase of storms and flooding has been associated to the Global warming. Although storm and hurricane hits Dominican Republic almost every year, an outbreak of Leptospirosis was not identified until the tropical storm Noel hit the Dominican Republic on October, 2007. The objective of the study is to describe the epidemiological and clinical characteristic of patients with leptospirosis in this outbreak.

Methods: This is a descriptive, observational and cross-sectional study to determine the clinical and epidemiological characteristics of 60 patients admitted to the Robert Reid Cabral Children’s Hospital with a suspicious diagnosis of leptospirosis.

Results: Sixty patients were admitted with diagnosis of suspicious leptospirosis during November 15th to December 15th, 2007. Positive serological confirmations were in 22 patients (36.6%). Male were 68.3% and female 31.7%.
Multiple Nucleotide Change in the rpoB gene of Mycobacterium tuberculosis Isolates Correlate with High-level of Resistance to Rifampicin in Belarusian Patients with Active Pulmonary Disease

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The aim of this study was to investigate the significance of multiple-mutations in the rpoB gene, predominant nucleotide changes and its correlation with high levels of resistance to rifampicin in Mycobacterium tuberculosis isolates that were randomly collected from sputa of 44 patients with primary and secondary active pulmonary tuberculosis from different region of Belarus. Drug susceptibility testing was determined using the CDC standard conventional proportional method. DNA extraction, rpoB gene amplification, and DNA sequencing analysis were performed. Thirt-three (75%) isolates were found to have mutation combinations involving nucleotide changes in codons 523 (GGG→GCG), 531 (TCG→TTG), 526 (CAC→CTC, GAC), and demonstrating predominant mutations in the last nine codons of β-subunit (523–531) were associated with higher levels of resistance to rifampicin (≥100 μg/ml).

doi:10.1016/j.ijid.2008.05.895

Mycobacterial Epidemiology Including Drug-Resistance (Poster Presentation)

50.001

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doi:10.1016/j.ijid.2008.05.894