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European Travel and Tropical
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European Centre for Disease
Prevention and Control Collaborative
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Medicine



EUROTRAVNET SCIENCE WATCH : MARCH 2010

Scientific Advances – *Plasmodium knowlesi* in Human, Indonesian Borneo. Figtree M, Lee R, Bain L, Kennedy T, Mackertich S, Urban M, Cheng Q, Hudson BJ. *Emerg Infect Dis.* 2010; 16: 672-674

Scientific Advances – African tick-bite fever: a new entity in the differential diagnosis of multiple eschars in travelers. Description of five cases imported from South Africa to Switzerland. Althaus F, Greub G, Raoult D, Genton B. *Int J Infect Dis* 2010 14: [Epub ahead of print]

Scientific Advances – Review paper – The past and present threat of vector-borne diseases in deployed troops. Pages F, Faulde M, Orlandi-Pradines E, Parola P. *Clin Microbiol Infect Dis.* 2010; 16: 209-224

Scientific Advances – Japanese encephalitis vaccines: recommendations of the Advisory Committee on Immunization Practices (ACIP). Fischer M, Lindsey N, Staples JE, Hills S; Centers for Disease Control and Prevention (CDC). *MMWR Recomm Rep.* 2010; 12: 1-27

Scientific Advances – Travel-related leptospirosis in Israel: a nationwide study Leshem E, Segal G, Barnea A, Yitzhaki S, Ostfeld I, Pitlik S, Schwartz E. *Am J Trop Med Hyg.* 2010 Mar;82(3):459-63.

Selection by Dr Philippe GAUTRET (philippe.gautret@club-internet.fr) on behalf of EuroTravNet

Scientific Advances – *Plasmodium knowlesi* in Human, Indonesian Borneo.

Figtree M, Lee R, Bain L, Kennedy T, Mackertich S, Urban M, Cheng Q, Hudson BJ.

Emerg Infect Dis. 2010; 16: 672-674

Description: The authors describe a case of *P. knowlesi* infection acquired in Indonesian Borneo that was imported into Australia. The patient had spent an average of 10 days per month for the past 18 months working adjacent to a forest area in South Kalimantan Province, Indonesian Borneo. The patient was treated with atovaquone/proguanil, 250 mg/100 mg, 4×/day for 3 days.

Link to the article

<http://www.cdc.gov/eid/content/16/4/pdfs/672.pdf>

ECDC comment: 2010-04-05

Plasmodium knowlesi is now established as the fifth Plasmodium species to cause malaria in humans. Four additional cases of *Plasmodium knowlesi* infections in travellers have been published very recently. Clinicians need to consider this diagnosis in a patient who has acquired malaria in forest areas of Southeast Asia.

Keywords : *Plasmodium knowlesi* - Indonesia - Australia

Scientific Advances – African tick-bite fever: a new entity in the differential diagnosis of multiple eschars in travelers. Description of five cases imported from South Africa to Switzerland.

Althaus F, Greub G, Raoult D, Genton B.

Int J Infect Dis 2010 14: [Epub ahead of print]

Description: The authors describe a cluster of five cases of ATBF occurring in Swiss travelers returning from South Africa. The co-incidental infections in these five patients and the presence of multiple inoculation eschars, two features pathognomonic of this rickettsial disease, suggested the diagnosis of ATBF. Indeed, the presence of at least one inoculation eschar is observed in 53-100% of cases and multiple eschars in 21-54%. Two patients presented regional lymphadenitis and one a mild local lymphangitis. Though a cutaneous rash is described in 15-46% of cases, no rash was observed in their series. ATBF was confirmed by serology.

Link to the article

<http://www.ijidonline.com/inpress>

ECDC comment: 2010-04-05

African tick-bite fever (ATBF) is an emerging spotted fever rickettsiosis that frequently presents with multiple eschars in travelers returning from sub-Saharan Africa and, to a lesser extent, from the West Indies. It is caused by the bite of *Amblyomma* ticks, whose hunting habits explain the typical presence of multiple inoculation skin lesions and the occurrence of clustered cases. ATBF can be confirmed by serology or by PCR of a biopsy of the eschar. Culture can also be done in reference laboratories. Dermatologists and primary care physicians should know this clinical entity, since an inexpensive and efficient treatment is available.

Keywords : African tick-bite fever – Multiple eschars - South Africa - Switzerland

Review paper – Japanese encephalitis vaccines: recommendations of the Advisory Committee on Immunization Practices (ACIP).

Fischer M, Lindsey N, Staples JE, Hills S; Centers for Disease Control and Prevention (CDC).

MMWR Recomm Rep. 2010; 12: 1-27

Description: JE vaccine is recommended for travelers who plan to spend a month or longer in endemic areas during the JEV transmission season and for laboratory workers with a potential for exposure to infectious JEV. JE vaccine should be considered for 1) short-term (<1 month) travelers to endemic areas during the JEV transmission season if they plan to travel outside of an urban area and will have an increased risk for JEV exposure; 2) travelers to an area with an ongoing JE outbreak; and 3) travelers to endemic areas who are uncertain of specific destinations, activities, or duration of travel. JE vaccine is not recommended for short-term travelers whose visit will be restricted to urban areas or times outside of a well-defined JEV transmission season.

Link to the article

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5901a1.htm>

ECDC comment: 2010-04-05

Two JE vaccines are licensed in the United States. An inactivated mouse brain--derived JE vaccine (JE-VAX [JE-MB]) has been licensed since 1992 to prevent JE in persons aged ≥ 1 year traveling to JE-endemic countries. Supplies of this vaccine are limited because production has ceased. In March 2009, an inactivated Vero cell culture-derived vaccine (IXIARO [JE-VC]) was licensed for use in persons aged ≥ 17 years. JE-MB is the only JE vaccine available for use in children aged 1-16 years, and remaining supplies will be reserved for use in this group. JE-VAX is not available anymore in numerous European countries.

Keywords : Japanese encephalitis virus, vaccine, recommendations, US

Travel-related leptospirosis in Israel: a nationwide study

Leshem E, Segal G, Barnea A, Yitzhaki S, Ostfeld I, Pitlik S, Schwartz E.

Am J Trop Med Hyg. 2010 Mar;82(3):459-63.

Description: In this nationwide study of travel-related leptospirosis in Israel, all cases diagnosed at the Central Reference Laboratory for Leptospirosis, during 2002-2008 were retrospectively reviewed and only travel-related cases were included. During the study years, 20 (42%) of 48 leptospirosis cases in Israel were travel-related. Exposure occurred in Southeast Asia in 15 (75%) of 20 cases. The estimated yearly incidence of travel-related leptospirosis was 1.78/100,000 travelers compared with an incidence of endemic cases of 0.06/100,000 inhabitants (risk ratio = 29.6, 95% confidence interval = 16.7-52.4). Most patients (89%) were infected during water-related activities. Severe disease was present in 10 (55%) of 18 patients; 7 of them were presumptively infected with the Icterohaemorrhagiae serogroup.

Link to the article

<http://www.ajtmh.org/>

ECDC comment: 2010-04-05

Leptospirosis is re-emerging in developed countries as a travel-related infection. Leptospirosis should be suspected in any traveler with undifferentiated febrile illness, especially when water exposure is reported.

Keywords : Leptospirosis, Israel

Review paper – The past and present threat of vector-borne diseases in deployed troops.

Pages F, Faulde M, Orlandi-Pradines E, Parola P.

Clin Microbiol Infect Dis. 2010; 16: 209-224

Description: From time immemorial, vector-borne diseases have severely reduced the fighting capacity of armies and caused suspension or cancellation of military operations. Since World War I, infectious diseases have no longer been the main causes of morbidity and mortality among soldiers. However, most recent conflicts involving Western armies have occurred overseas, increasing the risk of vector-borne disease for the soldiers and for the displaced populations. The threat of vector-borne disease has changed with the progress in hygiene and disease control within the military: some diseases have lost their military significance (e.g. plague, yellow fever, and epidemic typhus); others remain of concern (e.g. malaria and dengue fever); and new potential threats have appeared (e.g. West Nile encephalitis and chikungunya fever). For this reason, vector control and personal protection strategies are always major requirements in ensuring the operational readiness of armed forces. Scientific progress has allowed a reduction in the impact of arthropod-borne diseases on military forces, but the threat is always present, and a failure in the context of vector control or in the application of personal protection measures could allow these diseases to have the same devastating impact on human health and military readiness as they did in the past.

Link to the article:

<http://www3.interscience.wiley.com/journal/123277398/issue>

ECDC comment: 2010-04-05

This very comprehensive review on vector-borne diseases in military forces overseas illustrates the specific issues applicable to travel-related disease risks in soldiers and also demonstrates that Military Medicine and Travel Medicine have many commonalities.

Keywords : Vector borne diseases, army