

## Poster Session – Travel Medicine and Tropical Diseases

**PP-238** Molecular epidemiological survey of *Anaplasma phagocytophilum* for goats and ox in Zhejiang province

Q.Y. Lu<sup>1\*</sup>, L.X. Zhang<sup>2</sup>, J.M. Sun<sup>1</sup>, L.P. Jiang<sup>1</sup>, C.L. Chai<sup>1</sup>, S.G. Zheng<sup>3</sup>, S.P. Gu<sup>4</sup>, J.H. Ge<sup>5</sup>, S.W. Wang<sup>2</sup>, H.L. Yu<sup>2</sup>, L.J. Zhang<sup>2</sup>. <sup>1</sup>Zhejiang Center for Disease Control and Prevention, Hangzhou 650022, Zhejiang Province, China, <sup>2</sup>National Institute of Communicable Disease Control and Prevention, China, <sup>3</sup>Jinhua District Center for Disease Control and Prevention, China, <sup>4</sup>Anji Center for Disease Control and Prevention, China, <sup>5</sup>Tiantai Center for Disease Control and Prevention, China

**Objective:** Anaplasmosis is an emerging tick-borne zoonosis caused by the obligate intracellular bacteria *Anaplasma phagocytophilum*. An unusual cluster of HGA cases occurred in Anhui province during 2006 where nosocomial human to human transmission was demonstrated. As a result of this event, an investigation to assess the molecular epidemiologic status of the zoonotic “ricketsial” infection caused by *A. phagocytophilum* among domestic animals in three rural Counties of Zhejiang Provinces during March through July 2010.

**Methods:** Five goats and ox were randomly selected from each farmer family investigated in the study and 5 ml blood were collected to separate serum for testing IgG antibody against *A. phagocytophilum* and the remaining clots were used to extract DNA for amplifying and sequencing 16SrRNA genes of *A. phagocytophilum*. Diversity of 16SrRNA genes (210bp) was analyzed by MEGA4.0 software.

**Results:** The total positive rates of amplifying 16SrRNA genes of *A. phagocytophilum* for animal blood samples were 39.4%. Broad diversity of 16SrRNA genes of *A. phagocytophilum* were demonstrated and 5 epidemiological strains were noticed in the surveyed areas.

**Conclusion:** Infection with *A. phagocytophilum* in domestic animals including goats and ox were population in rural areas of Zhejiang province. Further laboratory investigation of unknown febrile patient especially obtaining evidences of pathogens in clinics and comparing them with isolates from animals should be emphasized in the future surveillance work in these regions.

Supported by the national basic research project-973 plan (2010CB530206), and special project of key communicable viral hepatitis-research on infectious diseases surveillance platform of national Sci-Tech key project (2009ZX10004-203) and on pathogen laboratory network surveillance technique (2008ZX10004-008).

**PP-239** Clinical characteristics of 14 imported cases with dengue fever

X.F. Duan<sup>1\*</sup>, X.J. Wang<sup>1</sup>, X.D. Guo<sup>1</sup>, W. Ling<sup>1</sup>, F. Qian<sup>1</sup>, Y.R. Li<sup>1</sup>, M.M. Tian<sup>1</sup>, J.Z. Guo<sup>1</sup>, X.L. Fan<sup>1</sup>. <sup>1</sup>Department of General Medicine, Beijing DiTan Hospital, Beijing, 100015, China

**Objectives:** We investigated the clinical characteristics of imported dengue fever cases in order to improve the diagnostic capacity of dengue fever in infectious disease doctors.

**Methods:** Clinical data of 14 imported patients with dengue fever were retrospectively analyzed from 2001 to 2010.

**Results:** (1) Patients ranged from 8–53 years old, with 57.1% (8/14) of them aged 20–39 years. Male/female ratio was 3.7:1. Most patients acquired their infection from Southeast Asia, only two combined with malaria were imported from Africa. The average time interval

between onset and diagnosis were 9 days. All patients recovered without severe complications. (2) The main clinical manifestations included fever, headache, myalgia, skin rash, fatigue, swollen lymph nodes. The peak temperature ranged from 38.6–40.2°C, and the lasting time ranged from 2–11 days. Most skin rash (5/8) appeared as congestive rash and occurred from days 3 to 7 of the clinical course. Flushing face or prothorax, conjunctival hyperemia were common signs. The abnormal laboratory findings included leucopenia, thrombocytopenia, elevated alanine aminotransferase, elevated aspartate aminotransferase, hypokalemia (Table 1).

**Conclusion:** Most dengue fever cases were imported from Southeast Asia. The 14 imported patients were typical dengue fever but with high percentage of liver injury and hypokalemia.

Table 1. Clinical characteristics of 14 imported cases of dengue fever

Symptoms and signs	Number of cases (%)	Abnormal laboratory findings	Number of cases (%)
Fever	14 (100)	Leucopenia	11 (78.6)
Headache	10 (71.4)	Neutropenia	10 (71.4)
Myalgia	9 (64.3)	Thrombocytopenia	10 (71.4)
Skin rash	8 (57.1)	Elevated ALT	7 (50.0)
Flushing face and prothorax	8 (57.1)	Elevated AST	10 (71.4)
Fatigue	7 (50.0)	Elevated TBil	3 (21.4)
Conjunctival hyperemia	7 (50.0)	Elevated LDH	8 (57.1)
Swollen lymph nodes	5 (35.7)	Elevated CK	6 (42.9)
Joint pain	5 (35.7)	Elevated CKMB	1 (7.1)
Nausea	5 (35.7)	Elevated HBDH	9 (64.3)
Splenomegaly	5 (35.7)	Hypokalemia	7 (50.0)
Hepatomegaly	3 (21.4)	Elevated BUN	1 (7.1)
Vomiting	2 (14.3)	Elevated Cr	1 (7.1)
Epistaxis	1 (7.1)	Reduced CD4 <sup>+</sup> T lymphocyte count	4/6 (66.7)
Orbital pain	1 (7.1)	Reduced CD8 <sup>+</sup> T lymphocyte count	3/6 (50.0)

**PP-240** Serological survey and genetic diversity of *Anaplasma* in domestic animals and healthy population in Anhui Province

S.W. Wang<sup>1,2\*</sup>, L.N. Tian<sup>1</sup>, Y.G. Zhang<sup>2</sup>, H.L. Shi<sup>2</sup>, L.X. Zhang<sup>1</sup>, M.H. Cao<sup>2</sup>, L. Mei<sup>3</sup>, G.R. Hua<sup>4</sup>, L.F. Yao<sup>5</sup>, L.J. Zhang<sup>1</sup>. <sup>1</sup>National Institute of Communicable Disease Control and Prevention, China CDC, Beijing 102206, China, <sup>2</sup>Centers for Disease Control and Prevention of Anhui Province, Hefei 650022, China, <sup>3</sup>Guangde County Centers for Disease Control and Prevention, Guangde 242200, Anhui, China, <sup>4</sup>Huaiyuan County Centers for Disease Control and Prevention, Huaiyuan 233400, Anhui, China, <sup>5</sup>Mingguang Centers for Disease Control and Prevention, Mingguang 239400, Anhui, China

**Background:** In 2006, an unusual nosocomial human to human transmission of human granulocytic anaplasmosis (HGA) occurred in Anhui province during 2006. As a result of these events, an investigation to assess the seroepidemiologic status of Anaplasmosis among farmers and domestic animals and molecular epidemiological characteristics of 16SrRNA gene of anaplasma in Guangde County where the index patient lived and Huaiyuan County and Mingguang city in Anhui Province was undertaken in 2009.

**Methods:** Seroprevalence of IgG antibody against *A. phagocytophilum* for farmers and goats, dogs and ox were