Results Based on serological tests and virus genome detection by PCR, 202 patients were classified as dengue and 103 as non-dengue. For patients evaluated on days 0–3, a model including conjunctival hyperaemia and leucopenia achieved a sensitivity of 83% and specificity of 71% for dengue diagnosis, with an area under the receiver-operating characteristic curve of 0.82. In patients evaluated on days 4–7, a model including rash and thrombocytopaenia achieved an area under the receiver-operating characteristic curve of 83%, with a sensitivity of 71% and specificity of 87.5% for dengue diagnosis.

Conclusions Predictive models including clinical and simple laboratory tests data achieved moderate accuracy for diagnosing dengue in ambulatory febrile patients. In our population, these models were more accurate than currently used WHO dengue case definition (1997) and could be potentially useful for surveillance.

04-3.4 NEUROCYSTICERCOSIS IN PIG FARMING COMMUNITY FROM NORTH INDIA

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Introduction Neurocysticercosis (NCC) is a major public health problem, especially in the developing world and also increasingly reported in the developed world either due to migration of infected population or Taenia solium carriers. Studies from developing countries and Latin America identified NCC as the major cause (26.3%–53.8%) of active epilepsy and 2% of neurological/neurosurgical admissions. We conducted a systematic study to estimate the disease burden in pig farming community of North India.

Methods Total 294 families from 30 villages were chosen based on 30 cluster sampling approach. Demographic, clinical and epidemiological data were collected from all the subjects. Individuals with active epilepsy were identified on door-to-door survey. Patients with active epilepsy and asymptomatic individuals underwent MRI of the brain.

Results Active epilepsy was identified in 5.6% populations and 48.3% of them had NCC; 15.1% healthy individuals had silent NCC. Epilepsy in the family and no separate place for pigs, intake of raw vegetable and undercooked pork, and lack of safe drinking water were identified as risks for NCC. TLR4 Asp299Gly and Thr399Ile gene polymorphisms, increased Th1 cytokines, sICAM-1 and MMP-9 levels in serum were associated with symptomatic disease.