ISVEE 14
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Presentation Abstract

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Presentation:	421 - Rift Valley Fever in humans and animals in Mayotte, an endemic situation ?
Location:	Ek-Balam
Pres. Time:	Saturday, Nov 07, 2015, 2:00 PM - 2:15 PM
Category:	+A6. Cattle, goats, poultry, sheep, swine
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Abstract:	Purpose: Retrospective studies and surveillance on humans and animals revealed that Rift Valley Fever virus (RVFV) has been circulating on Mayotte for at least 10 years. A study was conducted in 2011 to estimate the seroprevalence of RVF in humans and in animals and to identify associated risk factors. Methods: Using a multistage cluster sampling method, 1420 individuals were enrolled in the human study, including 337 children aged 5 to 14 years. For the animal study, 198 seronegative ruminants from 33 randomly selected sentinel ruminant herds were followed up for more than one year. In both studies, information on environment and risk factors was collected through standardized questionnaires. Results: The overall weighted seroprevalence of RVFV antibodies in the general population aged ≥5 years was 3.5% (95% CI 2.6-4.8). The overall seroprevalence of RVFV antibodies in the ruminant population was 25.3% (95% CI 19.8-32.2). Age (≥ 15), gender (men), place of birth on the Comoros, living in Mayotte since less than 5 years, low educational level, farming and living close to a water source were significantly associated with RVFV seropositivity in humans. Major risk factors for RFV infection in animals were continuous access to a water point, previous two-month cumulated rainfall and absence of abortions disposal. High RVF ruminant seroprevalence was observed on the island of Mayotte, with risk factors demonstrated to be similar between human and ruminant, mosquitoes playing an important role in the epidemiological cycle. Conclusion: This circulation could be explained by regular import of the virus from nearby countries through illegal animal movements, presence of susceptible animals and favorable environment for mosquito vectors to maintain virus transmission locally. Relevance: Although resulting in few clinical cases in humans and in animals RVF fever remain a major threat that should be tackled through a "one health approach" in which humans and animals within their ecosystems are included.