Serological evidence of henipavirus among horses and pigs in Zaria and environs, Kaduna State Nigeria


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**Background:** Henipavirus is an emerging, zoonotic and lethal RNA virus comprising Hendra virus (HeV) and Nipah virus (NiV), to which fruit bats are reservoir. Husbandry practices in Nigeria allow close contact between bat reservoir and animals susceptible to Henipavirus. This cross-sectional survey investigated antibodies reactive to Henipavirus sG antigen and associated risk factors in horses and pigs in Zaria, Nigeria.

**Methods & Materials:** Using convenience sampling, 200 horse sera (from four localities) and 310 pigs (from three localities) were screened an indirect Henipavirus Enzyme-Linked immunosorbent assay (ELISA) (CSIRO, Australia). Structured questionnaires were employed with questions on the demographics and management of the animals. Data were analysed using SPSS-17.

**Results:** An overall seroprevalence of 15.5% and 20% was obtained among horses and pigs respectively. Seroprevalence was higher for horses managed intensively (21.1%); used for sports (25.5%); watered with pipe-borne water (17.9%); fed commercial feed (58.1%); imported (69.5%); watered with pipe-borne water (17.9%); fed commercial feed (57.4%); feed in the pen (23.4%) and with a feed house (49.5%). Horses <5 years and pigs <6months had higher seroprevalences of 18.1% and 21.3% while the female horses and pigs had 19.8% and 22.8% respectively. Exotic horses and pigs revealed 25.5% and 55% while horses in Igabi and pigs in Giwa revealed: 24.7% and 70.2% seroprevalence respectively (P<0.05).

**Conclusion:** There is a suggestive evidence of Henipavirus in horses and pigs in Zaria, Nigeria with a huge public health implication. Local and exotic pigs and horses; pigs in Zaria and Sabon-Gari; horses in Zaria, Sabon-FGari and Kaduna North are associated with the seroprevalence of Henipavirus.

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