LETTER TO THE EDITOR

Landscape fragmentation and Ebola outbreaks

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The 2014 Ebola outbreak started in early-March, Guinea (Baize et al. 2014). Following, the outbreak spread into Liberia in March, Sierra Leone in May and Nigeria in July. Today every city in the affected regions embedded in the West Africa is at risk (Pigott et al. 2014). Hypotheses have been raised about possible mechanisms that made dynamics of Ebola transmission exacerbated (Bausch & Schwarz 2014). The coupled pathogen-reservoir system has evolved from a zoonotic-only transmission (Bausch & Schwarz 2014). The landscape fragmentation can have two roles in the Ebola transmission dynamics: (i) serve as epidemiological corridors in where pathogen-carrier reservoirs can maintain and spread zoonotic cycles and (ii) make a frontier of contact between forest fringes and anthropogenic environment. The former mechanism can be responsible to increase variability of genetic pools of the pathogen within the zoonotic Ebola transmission cycle, whereas the latter is the cause of contact between humans and the wild pathogen. These mechanisms may ultimately be linked to the mutant Ebola virus that infect humans and is responsible for the 2014 Ebola outbreak. Could therefore these mechanisms be inferred as determinants of Ebola outbreaks in the future?

REFERENCES


