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Negotiating cohabitation in a Nigerian abattoir: One Health perspectives of human-animal-ecosystem interactions examined in the light of the SARS-CoV-2 pandemic

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As urbanization reshapes ecosystems, human-animal-environment interactions intensify, increasing zoonotic disease risks. This One Health study investigates a key interface: a Nigerian abattoir during the SARS-CoV-2 pandemic. Combining ethnography with semi-structured interviews, and biological sampling of livestock, dogs, and small mammals, we explored zoonotic transmission pathways. Fieldwork in both rainy and dry seasons (2022) revealed the abattoir as a densely shared space, where seasonal rhythms shape interaction intensity. While no SARS-CoV-2 RNA was detected, antibodies were found in cattle, goats, sheep, dogs, and shrews, with notably higher seroprevalence during the rainy season—suggesting prior cross-species exposure shaped by environmental and behavioural dynamics. Our findings underscore the critical role of abattoirs as multi-species hubs and highlight the value of integrating qualitative and serological data in zoonotic surveillance. Strengthening interdisciplinary strategies in such high-contact settings is essential to mitigating emerging health threats and enhancing resilience across species.

Keywords

One Health, abattoir, Nigeria, livestock, anthropology, urbanization, SARS-CoV-2, wildlife

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No, I am not a Junior Scientist.

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