It is biologically plausible that armadillos play a role in the transmission of leprosy. We expected exposure to armadillos to play a larger role among patients without a known contact with another case of leprosy (or KLC), but in fact there was an increase in both groups. A possible explanation for this is that if contact with armadillos was a risk factor, then those with a known contact with another case of leprosy would not have been exposed to armadillos. This would lead to a decrease in the number of cases with a known contact with another case of leprosy. However, this was not observed in our study.

Multibacillary cases were more likely to have had direct exposure to armadillos. In the case of contact with armadillos, further questions were asked about the type of exposure. Exposure to armadillos was classified as direct and indirect exposure following the classification by Thomas et al. [25]. Direct exposure was defined as skin contact with armadillos, while indirect exposure included exposure to armadillos through the consumption of armadillo meat or the handling of armadillo products. Direct exposure was associated with a higher risk of leprosy, while indirect exposure was not associated with a significant risk of leprosy. The results of this study suggest that direct exposure to armadillos is a risk factor for leprosy.