

BACTERIOLOGICAL SURVEILLANCE IN RODENTS LEARNING FROM MISTAKES

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Abstract The knowledge about prevalence of different zoonotic bacteria in rodents is a priority in the surveillance systems in public health. Salmonellosis, Campylobacteriosis, or Listeriosis are some of the most important zoonotic diseases. Their presence, prevalence and distribution is a valuable information for the decision making in public health. We carried out a study to determine the bacteriological status in mice (*Mus musculus*) from municipal buildings in Barcelona. We sampled 21 mice from January to July 2019. We installed multicatch traps where high population of mice had been detected. In the lab, we dissected the distal part of their intestine, and analysed them with different microbiological techniques for the detection of *Salmonella* spp, *Campylobacter* spp, *Listeria* spp, *Yersinia* spp and *Escherichia coli*. The analysis gave an unexpected result: no bacteria was found, neither the pathogens studied, nor any other kind of bacteria. A review of the results showed that all samples had been taken from buildings where rodenticide treatments were being carried out. Rodenticides used have bactericides in the composition as a preservative (as rodenticides usually have). This interference in the results has to be taken into consideration in its interpretation. This information is relevant for the design of microbiological studies in rodents to avoid interferences in the results and interpretations.

Key words Surveillance, rodents, bacteriological, rodenticide