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Pododermatitis in group housed rabbit does in Switzerland

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Key words
Rabbit, group housing, pododermatitis, risk factors, Bayesian networks

Aim of the study
The goal of the study was to determine the prevalence, severity and progression of pododermatitis in group-housed breeding does in Switzerland. Additionally, possible risk factors that could lead to the development of pododermatitis were investigated to be able to reduce the occurrence of pododermatitis with preventive measures in order to improve the welfare of the rabbits.

Material and methods
In a cross-sectional study, 17 out of 18 commercial Swiss farms with group-housing were visited where 30% of all adult breeding does (total 1090 female rabbits) were evaluated for the presence and the severity of pododermatitis. Additionally, various animal-related and environmental risk factors known from the literature were recorded and analysed with additive Bayesian network (ABN) models. Further, we did a longitudinal study where the same 201 rabbits on 3 different farms were visited every 4 weeks during one year to examine the progression of pododermatitis. The same risk factors as in the cross-sectional study were assessed during every visit and then analysed with ABN.

Results and significance
With the cross-sectional study we could show that about 25% of the animals had at least one painful lesion on one leg, while the prevalence varied between farms from 4 - 49%. Older and heavier rabbits as well as animals with longer claws showed more severe pododermatitis. The best model explained 37.4% of the observed variance in the primary outcome measure for pododermatitis.
These findings demonstrate that pododermatitis is prevalent in female breeding does even in group housing systems with litter and plastic slats. However, the results of this cross-sectional study also indicate that important risk factors may have been missed or were not recorded precisely enough. Thus, more in-depth research is needed to assess risk factors of pododermatitis in view of effectively preventing the occurrence of this painful disease.
In the longitudinal study we could show that bleeding or very dirty legs could heal or become clean, respectively. The analyses for the risk factors are still pending.

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