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Correlation between external and internal claw lesions in sows

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Background & Objectives

Claw and leg problems are among the most common reasons for sow euthanasia. Previous studies report that 80-99 % of sows exhibit at least one claw damage, predominantly affecting the outer claws, with hind legs being most vulnerable. This study focused on hind legs to investigate the correlation between external and internal claw lesions in euthanized or spontaneously dead sows.

Materials & Methods

A total of **513 hind legs were collected from 306 herds** at the main rendering plant in Denmark. Of these, **258 legs were from euthanized sows and 255 from sows that died spontaneously**. Pathological examinations were carried out at Kjellerup Veterinary Laboratory, Denmark. Findings were recorded and analyzed to assess statistical correlations. Spearmann's rho was calculated (corr.) to describe correlations.

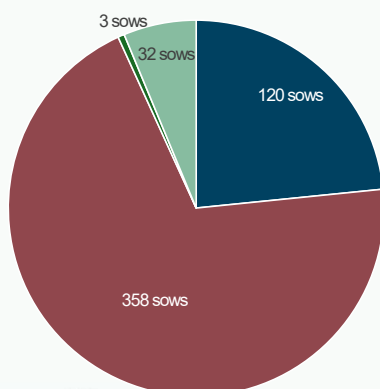
Results

Euthanized sows had significantly more external and internal claw lesions compared to sows that died spontaneously (p=0.017).

There were significantly more lesions in the outer claw than in the inner claw. Several external claw lesions were significantly correlated; for example, sows with uneven sized claws also had overgrown claws (corr.=0.56) and heel horn growth (corr.=0.24). Internal lesions such as arthritis and bone marrow inflammation showed strong inter-correlations (corr. up to 0.76). When wounds were observed on the sow's skin near the dewclaw, coronary band or pastern, or when the claw wall was detached; inflammation was often present in the underlying tissue, joints and bones.

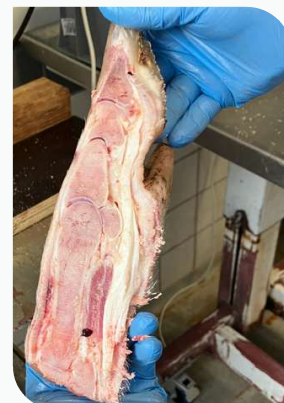
Discussion & Conclusion

Results show a clear correlation between external claw lesions and internal claw lesions in sows. The wall and sole of the claw provide protection, but damages to the dewclaw, pastern and coronary bands seem to increase the risk of internal infections. Future studies should focus on preventing and treating skin injuries and claw lesions, as well as managing overgrown claws and dewclaws through trimming.



Hindlegs of 513 sows on a danish rendering plant

- Both external and internal lesions (23%)
- Only external lesions (68%)
- Only internal lesions (0.6%)
- No lesions (6%)



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Report in Danish

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