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Effect of oral meloxicam in loose-housed farrowing sows

Anne Marie Michelsen*, Franziska Hakansson, Matt Denwood, Björn Forkman
Department of Veterinary and Animal Sciences, Faculty of Health and Medical Sciences, University of Copenhagen, Denmark. *am@sund.ku.dk

Background
- Loose-housed farrowing systems improves sow welfare
- Pre-weaning piglet mortality is higher in these systems due to more piglet crushing
- Involution of the uterus is assumed to cause pain in the first days after farrowing
- Pain may affect sow performance

Study objectives
To compare two groups of loose-housed farrowing sows given post-farrowing oral meloxicam or an oral placebo. The groups were compared with respect to:
- Piglets: Pre-weaning mortality, weight gain
- Sows: Salivary cortisol, anorexia
- Confounding risk factors were also investigated

Materials & Methods
- Animals from three Danish herds
- Sows were randomly assigned to treatment with oral meloxicam or placebo over two consecutive days
- Double blinded RCT study
- 3538 and 1032 piglets from 247 and 85 sows were used for piglet mortality (Cox’s proportional hazard model) and piglet weight gain (linear mixed model), respectively
- 200 sows for anorexia (log. reg.)

Registrations – piglets:
- Number of dead piglets
- Litter weight (day 1, 7, 14, 25 and 32)

Registrations – sows:
- Anorexia
- Parity
- Obstetric aid
- Disease and other treatment
- Clinical examination – pain

Subsample of sows:
- Salivary cortisol (pooled, n=65) in the treatment period (LMM)

Conclusions
- Oral meloxicam for sows did not significantly affect pre-weaning piglet mortality, weight gain or salivary cortisol, but did reduce the number of sows with anorexia

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