

Taping the fore knee of piglets reduces skin abrasion injuries

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Introduction

Skin abrasion injuries on the forelimb of piglets early in life are very common (1,2,3,5). They develop as a result of direct contact between the piglet and the floor and almost all vital and active piglets develop them. Skin abrasion injuries may cause lameness and may contribute to disturbances in the pig's normal gait; in addition, they may serve as a means of entry of infection. The forelimb abrasion injuries occur most often immediately below the carpus or extending from the carpus down to the metacarpus. - The objective of the present study was to determine if taping the fore knees immediately below the carpus shortly after birth would reduce skin abrasion injuries on piglets in commercial farms, and thus benefit pig welfare.

Materials and Methods

The study was in 3 commercial herds (A, 38 litters; B, 14 litters; C, 16 litters). Equal numbers of litters in each herd were taped and non-taped, respectively. Piglets were taped after they were all dry, within the first day of birth, using a well adhering tape, Leucoplast. The tape (2.5 cm in width) was cut in 2 cm long pieces which were placed dorsally, immediately below the carpus (Fig. 1), not around the knee in order not to disturb normal blood circulation. Production statistics (sow identity, No. liveborn, No. deaths during suckling, No. treatments and causes) were continuously recorded in the herd. At the age of 7 days (range 5-10 days) skin abrasions on the 2 fore knees of each piglet were recorded and measured using a ruler.

Statistics: Each litter was one statistical unit. The average diameter of the wounds was calculated per litter. An one-sided GLM-test was performed in SAS.



Figure 1. Shows how the tape was placed at the fore knee

Results

For some few of the pigs, the tape lasted to the recording of the skin abrasions, but in most cases the tape was gone by this time.- The results from the 3 herds are summarized in Table 1. The size of the skin abrasions was significantly smaller on pigs which had been taped. There were no significant differences in the number of pigs treated for arthritis/polyarthritis.

Table 1. Average wound diameter and treatment for joint inflammation in pigs with or without tape on their front legs

	Control	Tape
No. Litters	34	34
No. of piglets	394	405
Piglets/litter	11.6	11.9
Average wound diameter (mm)	8.7 ^a	5.9 ^b
No. pigs treated for joint infl.	52	43

(a, b) Superscripts indicate statistically significant differences within main effect ($p \leq 0.001$)

Conclusions and Discussion

The pigs were examined for skin abrasion injuries at 5-10 days of age; at this time the prevalence of abrasion injuries is high (3,5). Abrasion injuries on the fore knee are enhanced when the piglets fight for a teat and suckle. In addition to problems with floor quality and/or insufficient bedding material, knee injuries are aggravated when the sow milk supply is inadequate. - In weak born piglets these skin abrasions are usually insignificant.

Abrasion injuries of piglets in farrowing pens with concrete flooring may be reduced by using careful bedding routines around farrowing (4) and by improving floor quality (3,5). Taping of the fore knee is an additional option to reduce skin abrasion injuries and thus increases piglet welfare. There were no effects of taping on the number of piglets treated for joint ill.

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