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Health Quiz

NADIS Pig Health – May 2008

Facial Necrosis

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Clipping of the eye teeth of new born pigs has long been recognised as a necessary procedure to stop the piglets damaging each other and the sows udder, which may compromise milk production. However, in recent years there has been a tendency to not teeth clip as a result of:-

- 1) Pressure from the welfare lobby to stop “mutilation” of piglets, which has been translated into a statutory embargo on the routine clipping of teeth under the Welfare of Farmed Animals (England) (Amendment) Regulations 2003 (Schedule 6, paragraph 21).
- 2) A wish to reduce joint ill that may result from contamination of clipped teeth.

As a result, damage to litter mates is seen more commonly and, in some cases, this can progress to facial necrosis. The initial damage occurs within the first 24-48 hours of life but secondary facial necrosis may not be seen until 4-7 days of age.

The 8 temporary eye teeth of the piglet (4 corner incisors and 4 canines) are present at birth, are extremely sharp pointed (often being referred to as needle teeth) tending to protrude out of the side of the mouth (Figure 1). As pigs struggle and compete to suck on a teat, piglet mouths are brought into close proximity with each other and there is a tendency for aggressive lunges or more sustained aggression leading to scrapes and lacerations of the cheek, jowl and side of the snout. The larger the litter the greater the competition and resulting facial damage.

In some circumstances, these skin wounds become infected with secondary bacteria with resultant scab formation and blackening of the skin. The most common bacteria involved is *Staph hyicus* – the usual cause of Greasy Pig Disease – but occasionally other bacteria such as *Fusobacterium necrophorum* may be involved. Where particularly pathogenic strains of *Staph hyicus* are involved, the skin disease can spread backwards over the body. If the scabs are gently lifted purulent infection will be evident within the tissues.

Affected pigs may feel pain and be reluctant to suck – tending to lead to loss of body condition and ultimately starvation – and bacteria may spread into the blood stream leading to death from septicaemia, and/or can



Fig 1: Sharp needle teeth are present at births and protrude sideways, inflicting damage to litter mates



Fig 2: Facial necrosis can be the result of teeth damage

settle in other parts of the body (such as joints) leading to long term intractable septic arthritis.

In a study by Cambac JMA Research for MLC there was intermediate to severe facial damage in 6.5 percent of piglets with intact teeth and a 0.7 percent piglet mortality directly associated with facial damage from intact teeth. While healing of low severity wounds was rapid (2-3 days), healing of intermediate to severe wounds took 15-20 plus days, with a 3 percent increase in the use of antibiotics. Some researchers have also reported more udder injuries when the teeth of litters are left intact.

Treatment

Piglets affected with facial necrosis require both systemic (injectable) and topical treatment. Lincomycin, amoxycillin and cephalixin are commonly used effective injectable antibiotics but topical application of antibiotic cream may also be appropriate. Where wounds occur and secondary infection has not yet set in, preventative antibiotic treatment is appropriate. Bacteriological culture and sensitivity testing may be indicated to identify the best course of action. Non steroidal anti-inflammatory analgesics are appropriate support treatment.

Prevention

Correct teeth clipping will totally prevent the problem and is wholly justifiable where a risk is known or suspected. The teeth must be cut flat and not shattered and, as such, very sharp clippers should be used and teeth clipped close to the gum individually. Clipping teeth in pairs will tend to lead to shattering which allows entry of bacteria into the blood stream and cause secondary joint ill. Teeth should be clipped six to twenty four hours after birth. (An alternative to clipping is teeth grinding using a specifically designed mini-angle grinder although this is a much slower procedure). In either case full training must be provided.

Once teeth have been clipped they should be checked to ensure that shattering has not occurred- the main reason for bacterial penetration and subsequent joint infection. If this occurs regularly then both technique and equipment should be reviewed.

It is also vital that scrupulous attention to hygiene of equipment is practised. Clippers should be kept in a clean place, be thoroughly washed and disinfected after use and preferably dipped in surgical spirit between each piglet. On no account should the same pair of clippers be used to dock tails- the contamination that exists in the piglets mouth will easily spread to the tail wound.

If it is preferred not to teeth clip as a standard procedure and evidence of facial necrosis is seen, it is necessary for the stockman to closely monitor the faces of the piglets in the first 2 days of life watching for significant skin damage to the face. Litters affected should be teeth clipped at that stage and damaged pigs treated as above. If left unchecked, serious health, production and welfare problems will ensue.

Whilst the law requires the teeth clipping is not performed routinely, the welfare implications of interrupted suckling and facial necrosis fully justify its application under veterinary guidance. It should be noted that clipping teeth before six hours after birth can interfere temporally with



Fig 3 Clipping teeth individually will reduce shattering



Fig 4: Dipping clippers in surgical spirit between piglets will reduce secondary infection

sucking and can compromise colostrum uptake. Therefore delay until after this time but not beyond twenty four hours old where regular therapeutic clipping on a herd basis is justified.

Practical Implications

Whilst the fully blown necrotic lesions illustrated represent the extreme end point of a failure to clip teeth, the milder abrasions and lacerations which are common can be associated with a raised level of mortality. Studies in a number of farms have shown that mortality levels in litters not teeth clipped (where litter size at birth exceeds eleven pigs born alive) can be two percentage points higher than in clipped litters (-i.e. typically a 20% increase in mortality).

Measured in a typical 500 sow breeding unit over a year this can lead to a loss of over two hundred and fifty extra piglets at a cost to the farm of more than £9000.

To remain within legal constraints, it is advisable to record evidence of facial damage in unclipped litters along with standard mortality figures to be able to justify therapeutic clipping rather than routine clipping.

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Health Quiz

NADIS Health Bulletins are designed to improve farm income, animal health and welfare by promoting disease control and prevention.

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