EFFECT OF ORGANIC AND CONVENTIONAL HOUSING ON PREVALENCE OF OSTEOCHONDROSIS DISSECANS IN FINISHING PIGS

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Abstract. *For more than a decade organic fattening pigs in Sweden have had 3 to 5 times higher joint condemnation rates at slaughter than conventional pigs [1]. Osteochondrosis dissecans (OCD), characterized by cracks in the epiphyseal articular cartilage and synovitis, is a main cause of joint condemnations in Swedish organic fatteners [2]. Organic fatteners range freely indoors and have access to an outdoor paddock and/or pasture, while conventional fatteners mostly are confined to small indoor pens. We hypothesized that free-ranging promotes development of OCD. This study compared the prevalence of OCD in shoulder, elbow, stifle and hock joints of 91 free range and 45 confined crossbred Hampshire (Yorkshire x Landrace) fatteners, originating from the same piglet-producing herd.*

One thousand and eighty-eight joints were examined. In 45% of the free-range, compared to 17% of the confined pigs, an OCD lesion was present in at least one joint. OCD lesions occurred in the free-range in 9 of 18 examined locations and in the confined in 3 locations. The confined pigs had no OCD lesions in the shoulder or the stifle, the free range had 2.4% in the shoulder and 3.2% in the stifle. In the elbow 15% of the free-range pigs compared to 5% of the confined had OCD. In the hock 38% of the free-range compared to 14% of the confined pigs had OCD lesions. The difference in OCD prevalence between the free-range and the confined pigs was significant ($p<0.01$) in the hock and for the whole pigs.

The study indicates that free-range housing increases the risk fatteners have of developing OCD. Increased impact/stress on joints due to free-range activity may be the mechanism behind this. OCD may cause lameness and affect welfare in pigs, suggesting breeds better adapted to an active life may be needed for more sustainable organic pig farming. The study was conducted at one farm and the differences in housing environment were many. Hence, more research is needed to verify these results and to examine whether also other factors influence the pathogenesis of OCD in free range pigs.

REFERENCES

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