In this study, we did not observe an effect of giving an NSAID at birth to assisted calves on PI, health, and growth. Several factors that can be identified at birth were associated with an increased risk of failed transfer of PI, treatment for disease, mortality, and reduced growth. Vigour assessment at birth along with good colostrum management may be important management tools to improve PI and health in high-risk calves such as those that are assisted at birth.


detering of herds, to determine the effect of treatment with meloxicam at birth. Significant covariates (i.e. dam parity and BCS, calf sex, presentation, meconium staining, vigour assessment, birthweight, time to stand and nurse, and route or type of colostrum consumed) were offered to the models. Outcomes included: serum IgG concentration, adequate PI (serum IgG concentration > 24 g/L), preweaning treatment for disease and mortality, and average daily gain to weaning.

Results

There was no association between treatment with meloxicam at birth and serum IgG concentrations, adequate PI, treatment for disease, mortality, or average daily gain (P>0.05). Bottle or tube-feeding calves was associated with decreased serum IgG concentrations (P=0.01) compared to those that nursed. Calves with weak suckle reflex had 0.7 higher odds of inadequate PI (P=0.05) compared to those with a strong suckle reflex. Calves with incomplete tongue withdrawal had 1.8 higher odds of being treated for disease compared to those with complete tongue withdrawal (P=0.009). Meconium stained calves had 5.4 higher odds of mortality compared to those without meconium staining and decreased serum IgG concentrations were associated with an increased risk of mortality (P=0.03). Being born of a mature cow, having a higher birthweight, and increased serum IgG concentrations were associated with greater average daily gain at weaning (P<0.05).

Significance

In this study, there was no effect of giving an NSAID at birth to assisted calves on PI, health and growth. Several factors that can be identified at birth were associated with an increased risk of failed transfer of PI, treatment for disease, mortality, and reduced growth. Vigour assessment at birth along with good colostrum management may be important management tools to improve PI and health in high-risk calves such as those that are assisted at birth.