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**CONGENITAL ARTICULAR RIGIDITY OUTBREAK DUE TO RUMINAL DYSFUNCTION IN A BELGIAN BLUE CATTLE HERD**

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Congenital articular rigidity (CAR) is due to a limitation of the movement of the joint before birth. This affects the posture and flexion of the limbs in the newborn calves. Different etiologies are described but none of these forms would correspond to the entity encountered in Belgian blue cattle breed (BBCB). Se and I deficiencies are implying in calves vitality affecting in utero mobility. Nowadays, CAR seems to be due principally to fetomaternal disproportion and trace elements deficiencies. We herein report the study outbreak of CAR due to ruminal dysfunction in a BBCB herd.

**Methods**

Data analysis, recorded between Autumn 2016, revealed 16% calves suffered from CAR, two from generalized arthrogryposis, one from cardiomyopathy and about 30% from weak calf syndrome.

**Results**

Based on farm inspection and laboratory investigations, we highlighted a trace elements deficiency despite the sufficient complementation. A ruminal dysfunction and impaction could be due to the very poor quality of the forages, the distribution of the diet promoting a sorting behavior and the insufficient water access. The ruminal impaction could explain the lack of abdominal space in the late pregnancy and increase the in utero calf hypomobility. Moreover, the ruminal dysfunction decreases macro and micronutrients absorption despite the sufficient intake and could explain the protein-energy malnutrition identified by the increase of the NEFA and the decrease of urea and blood glucose in late pregnancy. Moreover, the poor quality of the maize silage with a lot of indigestible fibers and by-starch encourage intestinal glucose absorption and then fattening of the cows.

**Conclusions**

This case report enhance the importance of the monitoring of ingested and metabolized food in beef herd health status to compare it with calculated ration. Ruminal impaction associated with fattening decreases significantly the space for the calf leading to CAR at birth. Ruminal dysfunction could however make micro nutrients insufficient.