

Evaluation of the treatment of septic arthritis by arthrotomy in calves

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The objectives of this study are to evaluate the effectiveness of the treatment of chronic septic arthritis of the tarsus, stifle or elbow joints by arthrotomy in calves.

This study included 29 Belgian blue calves suffering from chronic septic arthritis (CSA) of the elbow, the stifle or the tarsus referred to the Clinic for ruminants of Liege. For the arthrotomy, after an induction (xylazine), an intravenous general anaesthesia (triple drip) was used associated with a high epidural anaesthesia for the fore limbs. A single incision on the lateral side of the joint was performed except for the tarsal joint where a second incision on the medial side was also performed. The joint capsule and the cartilage were curetted. The joint was flushed with 2 l of chlorhexidine diluted solution. The incision was sutured except for the tarsus. Penicillin (20.000 UI/kg, IM, SID for 15 days), gentamicine (6 mg/kg, IV, SID for 5 days), flunixin (2.2 mg/kg, IV, SID) and cefalexine (5 ml, SID, intra-articular) were administered. Telephone follow up 3 months after surgery was performed.

All the calves had been previously treated for 13 ± 10 days with antibiotics and anti-inflammatory drugs in farm, without success. Thirteen tarsal septic arthritis including 10 with signs of osteomyelitis, 11 of the stifle including 6 with osteomyelitis and 5 of the elbow including 3 with osteomyelitis were diagnosed. Eight calves suffering from tarsal CSA were treated by arthrotomy and 5 had a good surgical outcome. Five calves were euthanatized for economic reasons. Seven calves suffering from CSA of the stifle were treated by arthrotomy and the others were treated medically. Four had a good surgical outcome. Two calves suffering from CSA of the elbow were treated surgically with success, 1 was euthanatized and 2 were treated medically.

CSA in calves represents 25.2 % of the consultations for lameness in cattle. CSA of the stifle, elbow and tarsus represent 31 % of all the cases of arthritis. Eleven of the 17 (65 %) treated calves had a good surgical outcome. These animals were fattened or used for breeding. Arthrodesis being unrealizable on these joints, the arthrotomy seems to be a reasonable option for calves suffering from CSA when medical treatment and joint lavage were ineffective and given the poor prognosis of the disease.

Key words: calves, arthritis, arthrotomy, lameness