Patent urachus with omphalophebitis and omphaloarteritis in buffalo calf and its successful surgical rectification

SayyedAun Muhammad, AbdulShakoor, MuhammadYounus, Mian MuhammadAwais, Syed Ehethsham ul Haq, M Kashif, M Kashif Maan and M SaleemAkhter*
College of Veterinary and Animal Sciences, Jhang, sub-campus -University of Veterinary and Animal Science, Lahore
*Faculty of Veterinary Sciences, BahuddineZakrya University Multan.
Email: aunmuhammad@uvas.edu.pk

Introduction

Patent urachus is a condition in which urachus fails to close shortly after parturition resulting into an abnormal passage of urine from urinary bladder through umbilicus. Several anatomical abnormalities of the urachus may occur in all species and have been reported in cattle calves and foals (Baxter, 1989). The umbilicus in calves consists of the urachus, umbilical vein, and paired umbilical arteries. These latter structures are often referred to as the umbilical remnants. The urachus, umbilical vein, and umbilical arteries normally regress after birth to become a vestigial part of the bladder apex, round ligament of the liver, and lateral ligaments of the bladder respectively. Urachal duct abnormalities have rarely been reported in buffalo calves. The present case of patent urachus seems to be the first ever report in buffalo calf.

History and clinical findings

A nine days old buffalo female calf of Neeli Ravi breed was brought to Veterinary Teaching Hospital, Department of Clinical Sciences, College of Veterinary and Animal Sciences, Jhang-Pakistan, with a main complaint that the animal was micturating from umbilicus. Physically the animal was alert and feeding on milk normally. The body temperature, pulse rate and respiration rate were normal. Hair around the umbilicus were soiled and wet due to influx of urine. The dribbled liquid was confirmed as urine from the laboratory. On the base of clinical examination and laboratory test, it was diagnosed as a case of patent urachus and was decided to be corrected surgically with prior consent of the owner.

Surgical Treatment.

The Calf was premedicated with injection Diazepam (Valium10®, Roche pharmaceutical-Pakistan) @ 0.15mg/kg B.wt i.m and was complimented with general anaesthesia by Injection Ketamine HCl (Ketarol, Global Pharma.Pak.) @ 3mg/kg B.wt. i.m. Ventral abdominal area was prepared aseptically by removing skin hairs and using surgical scrub. A skin incision was made around the umbilicus followed by sharp dissection to enter into peritoneal cavity. Urachus, inflamed umbilical artery and veins were surgically approached to their bases. Umbilical artery and umbilical vein were ligated and dissected. Urachal sinus was also ligated and transected very close to the apex of bladder. Peritoneal cavity was levaged with Normal Saline. Closure of abdominal wall was made by using different suturing pattern in routine. The calf was impregnated on course of antibiotics for five days followed by antiseptic dressisng daily by Tr.
Iodine. The animal recoverd completely with complete obliteration of urine spillage in span of 10 days.

Discussion

Potential complications that may result after umbilical surgery include hernia, ascending infection, peritonitis, cellulites and abscess formation (Mandy et al., 1996). In the present case, no such complications were observed.

References:
