FIRST FINDING OF PATENT URACHUS WITH OMPHALOPHLEBITIS AND OMPHALOARTERITIS IN PAKISTANI NEELI-RAVI BUFFALO CALF AND ITS SUCCESSFUL SURGICAL RECTIFICATION: CASE REPORT

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ABSTRACT

Patent urachus is rare condition in buffalo calves. Only one case has been reported in India (Pandu *et al*., 2000). The present case represents the first case report of a buffalo female calf of Nili-Ravi breed of Pakistan. Physically the animal was attentive and nourishing on milk usually. There was dribbling of urine from the umbilical region. The dribbled urine from umbilicus was confirmed as urine by the laboratory tests. On the basis of laboratory and clinical assessment, it was confirmed as patent urachus and was subjected to surgical treatment. Urachus was approached with inflamed umbilical artery and veins at their bases and were dissected after ligation. The animal got uneventful recovery after 10 days of post-operative management.

Keywords: patent urachus, buffalo, *Bubalus bubalis*, calves, umbilical, anesthesia

INTRODUCTION

Several structural anomalies of urachus arise in various animals and were studied in foals and calves (Baxter *et al*., 1989). Patent urachus is an ailment in which urachus unable to close just after parturition producing an unusual urine pathway through navel.

The navel in animal calves comprises urachus, joint umbilical arteries and veins. These later parts are commonly stated as umbilical left over. The urachus, umbilical arteries and umbilical veins generally degenerate subsequently after parturition to develop a useless fragment of lateral ligaments of bladder and round ligament of liver correspondingly.

HISTORY AND CLINICAL OUTCOMES

A buffalo calf (Neeli Ravi breed) at ninth day of age, micturating from umbilicus (Figure 1 and Figure 2) was brought to Department of Clinical Sciences, Veterinary Teaching Hospital, College of Veterinary and Animal Sciences, Jhang-Pakistan. The animal was attentive physically and was nourishing by milk routinely. The body temperature, pulse and respiration rates were normal. Hairs around the navel were muddy, wet and rough due to micturition (Figure 1 and Figure 2). The liquid dripped was tested as urine by laboratory. Patent

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urachus was diagnosed on the bases of clinical inspection and laboratory examination, and was decided for surgical rectification.

SURGICAL TREATMENT

Calf was sedated with Diazepam injection® (Roche pharmaceutical-Pakistan,Valium 10) 0.15 mg/kg B.W, IM followed by Injection Ketamine HCl (Global Pharma. Pak) 3 mg/kg B.W, IM. Ventral abdominal area was prepared aseptically by using invasive scrubbing. The surgical site was desensitized by infiltrating the lignocain injection. An incision was made on skin round the navel track. Urachus, swollen umbilical artery and veins were surgically approached to their bases. Umbilical vein and artery along with urachal sinus were ligated and dissected. Normal Saline solution was used for lavage of peritoneal cavity. Abdominal wall was closed by using simple continuous suture pattern. A course of antibiotics (Injection Penbiotic 1 gm, Nowan Lab. Pak.) for five days was offered along with daily antiseptic dressing using Tincture of Iodine. The animal recovered completely with complete obliteration of urine spillage in span of 10 days.

DISCUSSION

The present case was subjected with surgical treatment and stemmed into rapid recovery. A possible problem that may be the consequence of umbilical surgery comprises hernia, soaring infection, cellulites, peritonitis and abscess formation (Lopez and Markel, 1996). In this study case, no such obstacles were observed. With early diagnosis and surgical treatment, the patent urachous has good prognosis rate in foal (Jahanmardi*et al*., 2011). The outcome of surgical treatment and early diagnosis in present case also agrees with previous study in foals.

Figure 1. Female buffalo calf showing soiled umbilical area due to patent urachus.

Figure 2. Dribbled urine from the inflamed urachus.

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