Successful Clinical management of Uraemic toxaemia in a bitch

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Abstract

Uraemic toxemia is a condition resulting due to the retention of toxic waste metabolite of urine like urea, creatinine etc. in the blood. Which may prove fatal many a times. The retention of urine may be a sequelee of severe dehydration leading to oliguria followed by anuria or due to the nephritis in a animals. It has been observed that nephritis is oftenly associated with pyometra also. In the present study the elevated levels of urea and creatinine were alarmingly elevated and was life threatening also. However the timely diagnosis & surgical intervention could save and prolong the life of bitch.

Keywords: Therapeutic, Uraemia, Toxaemia, Bitch, Management.

Introduction

Uraemic toxemia is a condition resulting due to the retention of toxic waste metabolite of urine like urea, creatinine etc. in the blood. Which may prove fatal many a times. The retention of urine may be a sequelee of severe dehydration leading to oliguria followed by anuria or due to the nephritis in a animals. It has been observed that nephritis is oftenly associated with pyometra also (Roberts, 1972). The present report deals with a case of uraemic toxemia resulted due to open pyometra in bitch.

Case History

A Labrador bitch of about 8yr.old was brought to the Teaching Veterinary Clinical Complex Nagpur with the complaint of vomition, complete inappetence, dehydration, anuria, reluctant to move, dull, depressed, with distended abdomen, lateral recumbency and purulent discharge through the vagina.

Clinical finding

On clinical examination conjunctivae were observed toxemic with body temperature was 102.4^{0}F. The enlarged and flabby uterine horns on abdominal palpation & purulent vaginal discharge lead to the suspicion for pyometra. The ultrasonic examination revealed the presence of pus in both the uterine horns, which confirm the diagnosis of pyometra. Pyometra is uterine inflammation with accumulation of purulent material or pus in the uterus & is one of the common problems in the bitches. Pyometra is usually seen in bitches as a sequel of metritis and other related conditions. The etiopathogenesis is complex with both bacterial and hormonal parameters. Pyometra is a very serious reproductive disease, commonly seen in an aged nulliparous bitches (Sen *et.al*. 2001). The mean age of the bitch suffering from pyometra is 8.1± 2.8 years (Faldyn *et.al.* 2001).

The blood sample was collected before treatment for biochemical study; Serum urea, creatinine, sodium and potassium levels were evaluated. Biochemical estimates showed the significant rise in the serum urea and creatinine to 286mg/dl and 4.9mg/dl respectively and was life threatening. Serum sodium and potassium values were at near normal level i.e.130mcq/L and 6.1mcq/L respectively.

Vaginal pus swab was collected and subjected to antibiotic sensitivity test. Which registered sensitivity to enrofloxacin & ciprofloxacin however resistance to ampicillin, cloxacillin, amoxycillin, gentamycin, neomycin, nalidixic acid, metranidazole & streptomycin.

Treatment

Keeping in view the estimated biochemical values and ultrasonic images it was decided to undertake surgical interventions however prior to that the elevated levels of serum urea and creatinine were need to be within near normal levels otherwise it would

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have proved fatal hence accordingly therapeutic regimen was planned. The bitch was administered with Intravenous inj. DNS 150ml bid to lower the elevated serum urea and creatinine values. Inj. Perinorm (metaclopromide HCL) @ 1mg/kg was given i/m, od for two days to controls the vomition. Inj. Enrofloxacin @ 5mg/kg body wt. was given i/m, bid to control the bacterial infection. Inj. Livadex was given 1ml i/m od as a supportive therapy. Biochemical analysis was again carried out on 6th day of treatment for serum urea and creatinine & it was 187mg/dl & 3.8mg/dl respectively, indicating favorable response to the treatment. The treatment was continued further. During the course of treatment the bitch was exhibited the sign of recovery like drop in body temperature, improvement in alertness etc. the biochemical evaluation again carried out on 9th day of treatment, which revealed serum urea 161mg/dl & creatinine 2.66mg/dl. The serum urea and creatinine value were found decreased further and bitch was also observed quite alert & active as compared to that on before treatment & had started taking food and water also. The continuous fluid therapy might have resulted in to the decreased levels of serum urea & creatinine (Fenner, 1992). However the discharge form vagina was persistent and hence decision was taken to operate the bitch since was adjudged good to sustain the operation. The uterine horns full with pus were removed. The discharge measured 4.5liter and a similar finding was reported by (Sing *et al* 2002) and (Kamble *et al* 2004)

The postoperative care was carried out for seven days with same antibiotics, anti-inflammatory, and B complex with liver extract injection were given as supportive therapy. Dehydration was overcome by intravenous DNS administration. The bitch showed satisfactory improvement in appetite & activity further by 9-10th day of operation. Similarly the Sr. urea and creatinine values were also found decreased to near normalcy i.e. 33mg/dl & 1.8mg/dl respectively on 10th postoperative day.

In the present study the elevated levels of urea and creatinine were alarmingly elevated and was life threatening also. However the timely diagnosis & surgical intervention could save and prolong the life of bitch (Venugopalan1999; Bojrab 1983).

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