A CASE OF FETAL DYSTOCIA DUE TO CONGENITAL HYDROCEPHALUS WITH MICROMELIA IN A PUG AND ITS MANAGEMENT

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A two and half year old Pug bitch was presented at Teaching Veterinary Clinical Complex, Nagpur Veterinary College, Nagpur with the history of four live puppies whelped. Even though the bitch had tried to expel the remaining foetus restlessly. Therefore the bitch was presented for the confirmation of any further puppies. Complete clinical evaluation was done. Bitch was in second parity with completed gestation period of 64 days. Per vaginal examination revealed enlargement of foetal head in the fully dilated birth canal. Ultrasound examination revealed, two dead fetuses. Hence the decision of caesarean section was immediately taken to avoid any further complications. It was observed that there were two fetuses. One foetus had hydrocephalic head along with micromelia due to which foetal dystocia had occurred and one other was normal but dead foetus. Both were removed from the uterus of bitch after caesarean section. Post operative care was taken with antibiotics and the bitch showed uneventful recovery.

Keywords: Dystocia, Hydrocephalus, Micromelia, Pug.

Hydrocephalus is the dropsy of the brain with recognizable swelling of cranium due to excessive accumulation of cerebrospinal fluid either in ventricular system or in between parenchyma of brain and meninges (Dar *et al.,* 2012). Number of infectious diseases have been reported to cause hydrocephalous of the fetus as a result of infection in the dam. Likewise viruses responsible for hydrocephalous includes Akabane virus, Bovine Viral Diarrhea virus, Cache Valley virus and Blue Tongue virus. The infection of the fetus causes either excessive production of cerebrospinal fluid or damage to the outflow tract of the cerebrospinal fluid resulting in progressive enlargement of the fetal head with increased fluid pressure within the brain and malformation of the brain and skull (Leaold *et al.,* 1974).

Malformations of the extremities or parts of them vary in their manifestations, ranging from absence of a single structure to partial or complete absence of the limbs (Lallo *et al.,* 2001) Micromelia is described as the abnormal smallness of one or more limbs (Macri *et al.,* 2012). Present communication deals with the case of fetal dystocia occurred due to congenital hydrocephalus with micromelia in a pug breed and its management.

Case History and Observations

A two and half years old pregnant Pug bitch was presented at Teaching Veterinary Clinical Complex, Nagpur Veterinary College, Nagpur with the history of four live puppies whelped at home a day before the presentation. Bitch was in second parity with completed gestation period of 64 days. Complete clinical evaluation was done and found that body temperature and pulse rate was normal without any signs of septicemia or toxemia. Per vaginal examination revealed enlargement of foetal head in the fully dilated birth canal which was not possible to deliver naturally while ultrasound examination revealed that two dead fetuses were present in the uterus. Therefore without wasting much more time the decision of caesarean section was immediately taken to avoid any further complications (Fig.1).

Results and Discussion

There were two dead fetuses in the uterus, of these one had hydrocephalic head with micromelia (Fig.2), while second dead foetus was normal in appearance. Both were removed from the uterus of bitch after

caesarean section. Post operative care was taken by administrating Ceftriaxone sodium @ 20 mg per Kg body weight for 7 days and inj. Meloxicam @ 0.5 mg per Kg body weight for 3 days and the bitch showed uneventful recovery.

Fig.1-Caesarean section performed

Fig.2-Congenital hydrocephalic foetus with micromelia

Depending on the etiology, hydrocephalus is generally classified as into congenital or acquired forms as also reported by Hecht and Adams (2010). The causes are diverse and include genetic factors, developmental anomalies, intrauterine or prenatal infection or bleeding in the brain. Puppies with congenital hydrocephalus generally do well, if there is no severe brain damage. But in the present case, condition may be due to prolonged time to present the dog for the treatment, foetus could not survive. In the present reported case, the enlarged head was not possible to pass easily through the birth canal and therefore it resulted in dystocia, although sometimes the fetus may be delivered normally and presented later for therapy of the foetus.

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