

## POST-MORTEM CAESARIAN IN A DACHSHUND BITCH

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### Introduction

Postmortem caesarean is the surgical removal of foetus immediately after the dams death (Mosby, 2009). Death of foetus before or after parturition is a common finding. But if a full term pregnant dam dies, the survival of the fetuses depends on many conditions like cause of death of dam, duration between the death of the dam & placental separation etc. In cases like poisoning, fetal death may occur prior to the death of dam due to transplacental transfer of the poison. But in some other conditions like accidents, the fetus may be alive for sometime more after the death of the dam i.e. until the placental separation happens. Then fetal death occurs due to hypoxia. It is always better to check the life of fetus before burying the dam. In this paper a case of successful retrieval of live foetus by caesarean section, after the death of the dam is being reported.

### Case report

A four year old Dachshund bitch was presented at District Veterinary Centre, Trivandrum, with a history of dystocia. The animal was full term pregnant. It was in its third parity and the previous whelpings were normal. The animal started straining two days before and the owner noticed vaginal discharge the day before. The case was handled by a veterinarian the same morning and reported that the dog was weak, recumbent & anorectic. On per vaginal examination one fetal head could be palpated. Suspecting dystocia the case was referred to District Veterinary Centre, Thiruvananthapuram.

On clinical examination, no pulse and heart sounds of the dam could be detected. However fetal heart sounds could be detected by auscultating the abdominal area. On abdominal palpation the turgid uterus could be palpated. Absence of heart sounds, pulse, respiration, corneal reflex confirmed the

death of dam, but the feeble fetal heart sound indicated live fetus/es. After examination the adult dog was declared brought dead.

Immediately surgery was planned and lapro-hysterotomy was conducted. Six full grown pups were retrieved from the uterus of the dead dam. The whole procedure was completed within 15 to 20 minutes after the dam was declared dead.

Mucus was removed from nostrils and respiration was stimulated by compressing the chest. All the pups were alive and started respiring. Tr. Iodine was applied to the umbilicus and the mucus adhering to the body was cleaned with cotton. The pups were kept in warm environment, wrapped in a piece of cotton. In one of the pups, through the umbilical opening, a portion of the small intestine was prolapsed out, which was reduced by widening the umbilical opening after giving local anaesthesia with 2% xylocaine and sutured back using catgut 3/0.

The owner was advised to give first stage Royal Canine puppy feed to the pups and to keep them in a warm environment.

### Discussion

Reports on the time of survival of foetus after death of bitch are very rare. In humans, there are fewer reports concerning the length and depth of intra uterine anoxia that will cause permanent cerebral damage to the fetus. But by clinical experience, 30 minutes is the upper limit of safety when fetal heart rate drops to 100beats/mts or less. Such babies should be delivered with in 15 to 20 minutes (Tenney, 1961). Experience with postmortem caesarean sections, after the death of the mother, has shown that the human fetus can survive up to 25 minutes of fetal anoxia (Vitsky, 1964). This is slightly longer than that for the new born Rhesus monkey (Mc Laren, 1996). Duffy & Sloss (1977) studied the response of bovine fetuses

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to anoxia by clamping the umbilical cord for 4, 6 or 8 minutes immediately before delivery. Four of six fetuses subjected to 4 minutes of anoxia survived whereas all others died when anoxia was of 6 or 8 minutes duration.

Recent research at Colorado State University (Adams et al., 1995) have shown that dystocia, associated with varying degrees of fetal asphyxia, resulted in major effects on immediate post natal well being of the calf. According to studies done on mice by Ream et al., (2008), epinephrine mediate fetal survival, maintaining oxygen homeostasis, i.e. hypoxia induces, a 13- fold increase in plasma epinephrine levels, which will increase heart rate, thereby improving oxygen delivery.

Routine health check up for pregnant bitch is necessary to evaluate the health status of dam and foetus/s. Lack of modern diagnostic facilities (Ultra Sound Scanning) for evaluating foetal status in uterus and inpatient facilities for continuous monitoring of advanced pregnant animals are a lacunae in present canine practice.

Normally if a full term dam dies, the survivability of the fetus is not considered after the death of dam. But the above studies show that, the fetus can survive hypoxia for four to five minutes in case of bovine, up to 15 to 20 minutes in humans. In this case the fetuses survived about 15 minutes of hypoxia.

## Conclusion

The present case shows that systematic examination of fetal reflexes and heart rate, even after death of the dam, can save life of the fetus; rather than burying it with the dam.

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