

CLINICAL MANAGEMENT OF FETAL RESORPTION IN A BITCH

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A Pug Bitch of three years old was reported at Veterinary Clinical Complex, Nagpur Veterinary College, Nagpur with the complaint of vaginal bleeding since 2 weeks. On ultrasound examination, fetal sacs were observed without cardiac activity. It was diagnosed as Fetal resorption. The bitch had administered with Fluid therapy, Antibiotic injections intravenously along with Intramuscular injections of Ecbolics and Hemostatic injections over a period of five days.

Keywords: Bitch, Ecbolics, Fetal resorption.

Fetal resorption is described as “death of the embryo and resorption of the fluid component” in between day 19 and 35 day of gestation. There are no contractions during a bitch's resorption, and the fetus dissolves in the uterus rather than being evacuated. The incidence of resorption differs from 11% to 25.9% of the conceptuses observed (Freitas *et al.*, 2016). During embryonic phase embryonic resorptions can be observed, which, according to the literature, affects 5-43 % of pregnancies. Resorption has been hypothesized as a physiological event in uterine overcrowding, however other factors may be involved, such as infectious or non-infectious diseases (Lascialfari *et al.*, 2023). Both infectious and noninfectious causes (viral, non-viral, bacterial and protozoal diseases) will result in embryonic loss. Infectious agents such as *Brucella canis* or canine herpesvirus leads to embryonic and foetal death. The non-infectious cause is hypoluteodism which occurs due to inadequate progesterone secretion by the corpora lutea leads to fetal resorption. Other factors are chromosome abnormalities, very close inbreeding. Fetal resorption is recorded in brachycephalic breeds like pugs (17.18 %), Dachshund (6%)

and Doberman (7.8%) in a relatively high frequency (Sharma *et al.*, 2018).

Case history and Observations

A three years aged bitch being mated recently, was reported with prevaginal bleeding since couple of week. On general clinical examination, the temperature was recorded as 102.5°F. The respiration and pulse rate were in normal range. The mucus membrane appeared light pink. The appetite was normal. The owner informed that this animal was under treatment with Amoxicillin+clavulanate @8.5 mg/kg body weight, Ethamsylate injections I/M and Nitrofurazone tablets for 3 days.

On ultrasonographic examination (Fig. 1), fetal sacs were observed without cardiac activity. Differences in embryonic vesicle size were also recorded. Fetal remnants were evidenced by anechoic areas. Haemato-biochemical evaluation (Table -1 and Table – 2) revealed sub-normal haemoglobin concentration (9.5g/dl) along with elevated levels of neutrophils and alkaline phosphatase, However, BUN and Creatinine values were found within normal physiological range. Based on clinical

examination, the condition was is tentatively diagnosed as a Fetal resorption.

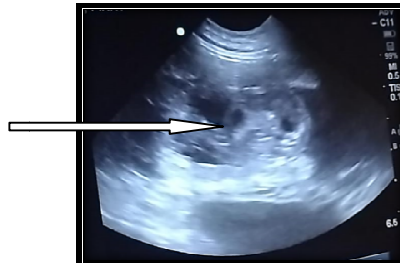


Fig.1. Ultrasonographic examination showing fetal resorption at 30 days pregnancy

Table1. HEMATOLOGICAL FINDINGS

S.No.	Clinical parameter	Observed value	Normal value
1.	Haemoglobin	9.5 gm/dl	12-18 gm/dl
2.	WBC	14.9×1000 cells/µl	6-17×1000 cells/µl
3.	PCV	35.2%	37-55%
4.	Neutrophil	81.0%	60-70%
5.	Lymphocyte	11.3%	12-30%
6.	Monocyte	7.7%	3-10%
7.	Eosinophil	2.7%	2-10%

Table 2. BIOCHEMICAL FINDINGS

S.No.	Clinical parameter	Observed value	Normal value
1.	BUN	16.3 mg/dl	12-25mg/dl
2.	Creatinine	1.22 mg/dl	0.5-1.5 mg/dl
3.	SGPT	20.6 IU/L	10-88 IU/L
4.	SGOT	24.8 IU/L	10-88 IU/L
5.	Lymphocyte	11.3%	12-30%
6.	SAP (Alkaline)	367 IU/L	20-150 IU/L

Treatment, Results and Discussion

The bitch was treated with Inj.5% Dextrose, Inj.Metronidazole@10 mg/kg b.wt along with Inj.Ceftriaxone@20 mg/kg b.wt intravenously. Inj. Methergine @ 0.2 mg total dose, Inj. Botropase @ 1 ml total dose was also administered intramuscularly. Methergine being ecbolic stimulates the uterine secretions. As a hemostatic agent, Botropase stops the bleeding from the vagina. In this case, as the vaginal bleeding is observed without any other signs, a non-infectious etiology is suspected. The ultrasonographic image shows reduction in the conceptus volume, increased echogenicity of the fetal fluid, absence of heartbeat and eventually, the conceptus collapses causing

the uterine wall to bulge inward. Additionally, anechoic regions appear within the fetal sac, and no fetal movement with gas accumulation in the fetal stomach. The close link between nutrition management and reproductive efficiency is well known, but there is very little data available concerning this topic in canine species as also mentioned by Orlandi *et.al.*, 2021. Resorptions can be identified by either ultrasound examination of the reproductive tract or direct observation of surgically removed ovaries and uterus. The evaluation of corpora lutea also needs to be considered, in future ultrasonographic studies.

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