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## Conception of a cow following administration of haematinic drug with vitamins in anaemic condition

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### Abstract

A six year old cow of Friesian breed from near village of Bikash Bihar colony of Patna was presented to OPD of Gynaecology clinic of TVCC with the complaint of conception failure. As per report of the owner the cow has not been fed green fodder as routine feedings since one and half years approx. Furthermore, the animal was infested with the external parasite so there was reason to suspect the case of anaemia. On clinical examination and history of case it was tentatively diagnose the case of anaemia. On haematological examination the blood haemoglobin level was observed around 7.5gm/dL. The animal has been treated with inj. Feritas @ 6ml, i/m twice a week for one month, Inj. Intavita-H @ 5ml twice a week for consecutively four week and one Cyclomin7 bolus once daily for 20 days to compensate micro minerals deficiency as well as the owner was advised to provide green fodder to their the animal. The cow successfully regains the normal blood haemoglobin level of around 10.8gm/dL after one month of treatment, later the animal was inseminated on spontaneous heat and cow conceived successfully and delivered a female calf. As we all know that anaemia is one among the all culprit for causing repeat breeding syndrome in cattle. If the animal is regularly getting health check-up as well as management for certain specific indices like, normal blood haemoglobin level, Feed and fodder availability especially green fodder, vitamin and trace mineral status and external parasite infestations resultantly the animal will be always in optimum reproductive efficiency.

**Keywords:** cows, anaemia, green fodder, trace mineral, vitamin

### Introduction

Reproductive efficiency is a critical component of any successful dairy operation, whereas reproductive insufficiency is one of the most costly problems facing the dairy industry (Pramod kumar *et al.*, 2018) [5]. There are broadly three factors which affect the productivity and reproductive efficiency of dairy animal are nutrition, hormonal imbalances and infection. Among which the nutritional factors is important one. The feed and the forage can have tremendous influences on the reproductive performance of cattle. Although reproductive failure may occur for several reasons, management and the environment are often important contributing factors. Hence, keeping in views of the above mention facts the present case was treated accordingly.

### Case history and clinical observation

As per report of the owner the animal failed to conceive after several efforts of artificial inseminations. On enquiry, owner reported that the animal has not been feeding green fodder for one and half year although animal has been feeding concentrate. Furthermore, the animal was infested with the external parasite so there was reason to suspect the case of anaemia. (Kaufman, 1917) [3] The animal has been tested for blood haemoglobin level and it was observed around 7gm/dL which is less than the normal blood haemoglobin level (10.08gm/dL).

### Treatment and Discussion

The animal has been given subcutaneous administrations of ivermectin inj@0.2mg/kg.b.wt there after, owner has advised to provide green fodder along with one Cyclomin7 bolus once daily for maintaining the trace mineral requirement of animal for 20 days. The intramuscular injection of vitamin (Intavita-H) @ 5mL twice a week for four week prescribed. Besides, an injection Feritas which contains iron @ 6ml, intramuscular twice a week for four week. The animal owner has also been advised not to inseminate cow and gives rest for one oestrus. Later on, animal was double inseminated at the interval of 12hrs. on spontaneous oestrus.

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The animal was tested for blood haemoglobin level after one month and was observed 10.8gm/dL. The animal did not showed any signs of oestrus after insemination and pregnancy diagnosis was made after 3 month post A.I. and confirmed the pregnancy. On completion of full gestation, animal successfully delivered a female calf. Khan *et al.* (2016)<sup>[4]</sup> and SP Arora, (1972)<sup>[1]</sup> clearly stated that green fodder is as importance as concentrate for livestock. Animals feeding on green pasture normally receive all vitamins and minerals that are needed (K.C. Sen, 1978)<sup>[6]</sup> and (Bhanderi *et al.*, 2014)<sup>[2]</sup>. Vitamin 'A' is one of the most important vitamins in animal nutrition. This vitamin is found in the carotenoid pigment of green plants, Vitamins D, E and K are also present in green plants (Sheela Chodhary and Ajay Singh, 2004)<sup>[7]</sup>. Vitamin 'A' deficiency leads to keratinisation of germinal epithelium in both male and female (S.P. Arora, 1972)<sup>[1]</sup>. One of fact is that small dairy farmers in our country are facing several challenges. Among these challenges the non-availability of green fodder round the year is important ones. Therefore, non-availability of green fodder resultantly affects fertility of dairy cows. As we know the economy of the dairy farming largely depends on pregnancy rate after insemination.

### Conclusions

It was concluded that if the animal is regularly getting health check-up as well as management for certain specific indices like, normal blood haemoglobin level, Feed and fodder availability especially green fodder, vitamin and trace mineral status and external parasite infestations resultantly the animal will be always in optimum reproductive efficiency.

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