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USING VITAMIN K IN TREATMENT OF HEMOLACTIA IN DAIRY COW UNDER RECENT PARTURITION

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ABSTRACT : Vitamin k is fat-soluble vitamins needed for blood coagulation in animals, but in this study was used to treat Hemolactia in calved cows ata dose 180 microgram per 100 Kg body weight. Farmers suffer from the economic loss because bloody milk is often rejected by the consumers. Forty cattle were used in this study in a period from February 2019 to November 2019. The result of this study was revealed to different causes of bleeding in milks. Hemorrhage appeared in twelve samples from the total samples and represent presence of bleeding in the mammary gland. While, the results of bacterial culture recorded that the nineteen isolates were revealed *E. coli* infection and the last seven were revealed the gram positive bacilli. Oral administration of vitamin K for three days obtained good results. Clinically the udder mostly is congested, lack in milk production, some time there are pain during milking of one, two, three or all quarters. The milk is reddish or pinkish. In conclusions, all cows with hemorrhage were recovering after treated with vitamin k, the cure rate reaches to 100% without any side effect on the animals.

Key words : Vitamin k, hemorrhage, milk, hemolactia, *E. coli.*

INTRODUCTION

There are many important causes of blood in milk, which includes hemorrhage by diapedesis, a passage or emigration, which is can blood cell through capillary wall into the tissue till reach the alveoli of mammary gland and mixed with milk just after calving (Heidrich and Renk, 1967). One of the important causes of hemolactia due hemorrhage that trauma to teat or udder by other cows or by itself (Ayaz, 1999). Other important cause is systemic microbial infection. Several bacterial infections as *Lepospira* spp and others in addition of many microorganism (*Proteus mirabilis*) could cause gangrenous mastitis in the local buffalo breed (Alsaad *et al*, 2018).

On another hand, viruses and yeast (*Monoscus purpureus*) may be causes systemic infection associated which capillary damage and intravascular hemolysis in udder (Balhara *et al*, 2016).

Champawat *et al* (1984) referred that the clinical sign on dairy cattle infected with leptospiraosis includes lactation of bloody milk from all four teats. The consistency of milk is thick and it contains blood. They did not record any case of hemoglobinuria, fever and abortion, then decrease in appetite and milk yield. Some fodders like *Rubia tinctorum* led to discoloration of milk. As well as thetoxins present in many plants may causes capillary damage then reddish discoloration of milk.

Some leafy plant example, spurage (Euphorbia) and shave grass. Also moldy sweet clover (Discoumarin poisoning) in feeding may be lead to bloody milk (Bulhara *et al*, 2016). Low platelets count, which attributed to many cattle diseases may show pinkish or reddish milk (George *et al*, 2008). Heidrich and Renk (1967) were refer to the role of vitamin C in maintaining the nature and milk color and when the cows are deficient to vitamin C. On another hand, all cows treated successfully with progesterone (Hyprogen), Etamsylate and homeopathic medicine such as curry leaf and lemon extract (Saranya, 2019).

MATERIALS AND METHODS

Experimental animals

Forty cows included in this study were lactate milk tinged with blood from first to seventh days for parturition.

Milk for laboratory examination

Twenty milliliters of bloody milk had been taken from cows after calving and followed by laboratory examination for bacterial identification. Milk samples put in centrifuge at a speed of 2500 rpm for 10 minutes.