

Short Communication

REGULAR LACTATION IN NON-ESTRUS AND NON-PREGNANT GOAT FOR YEARS -- A CASE REPORT

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ABSTRACT: A domestic red colored Bengal she-goat is reported to let down milk regularly from the age of four months for years in absence of any kind of medication. The goat never experienced estrus or pregnancy. The quantity of secreted milk is having a definite pattern. It secretes milk @ 1500ml/day for about six months. Then the quantity of milk decreased rapidly to 300 ml and that quantity lasted for about next six months. Again the quantity of milk increased gradually up to the level of 1500 ml in next six months and stay in this level for next six months and the pattern continued. The typical case is documented for the first time with searching of possible reasons.

Key words: Bengal goat, Non-pubertal, Lactation.

Lactation is a physiological phenomenon among mammals. The changes in the level of hormones during pregnancy and after parturition control the initiation and maintenance of lactation in the nursing mothers. Report of lactation in non-pubertal kid is very rare (Yuhara and Wada 1966, Pattanayak 2008) and regular lactation in non pubertal aged she-goat is reported for the first time here.

A farmer of Village-Harharia, Block-Raninagar 1, District- Murshidabad, West Bengal, India was rearing one red colored she-goat of Bengal variety called as *Tuci*. It was letting down milk during last four years. According to the report of the owner, it was noticed to let down milk for the first time during

the age of four months. Since then it was giving milk continuously.

Letting down of milk of the goat was having a definite pattern. The goat secreted milk 1500ml/day for about six months. Then the quantity of milk decreased rapidly to 300 ml and that quantity lasted for about next six months. Again the quantity of milk increased gradually up to the level of 1500 ml in next six months and stay in this level for next six months and the pattern continued. The goat never showed any sign of estrus and so never experienced pregnancy. The goat was accepted in the house of its owner as a pet member of the family. So it was accustomed to eat common human food like bread, boiled rice, fried

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First report of regular lactation in non-pubertal goat...



Fig. 1: Tuci, the non-pubertal lactating goat.



Fig. 2: Tuci with bondage.



Fig.3: Tuci lactating.



Fig.4: Showing external genitalia.

vegetable preparation, whey and even tea along with its normal diet like forages and grains like gram.

External genitalia of lactating heifer goat were found almost normal in size. The size of the vaginal orifice was also normal. Size and body weight of the heifer goat appeared very good in comparison with the common Bengal goats. The goat was found to have a vice to attack unknown persons. This goat was giving milk regularly to the owner.

In goats, estrogen alone can induce complete

udder growth and lactation, but some other endothelial secretions may play a role (Roberts *et al.* 1982). Once the anatomical development of the ducts and alveoli becomes complete, the continuous action of estrogen and progesterone is not required for lactation itself (Harrison *et al.* 1998).

For many years dairy scientists have induced lactation in non pregnant or virgin goats by means of direct injection of estrogen and progesterone. A new advance allows to improve the effectiveness of this treatment in dairy goats

by combining reserpine, a prolactin releasing agent (Salama *et al.* 2007). There are certain recommended drugs in lactation and pregnancy in women, such as Reglan, Sulpiride and Domperidone etc. which can stimulate lactation. They block dopamine and raise prolactin level. Increased prolactin, in turn, results in lactation. Intake of certain herbs can induce lactation, even without pregnancy. Fennel, fenugreek, anise seed, cumin seed, blessed thistle, goat's rue and hops are some of the common examples (Kalpana Kumari 2013).

In the present case, no medicine, artificial hormone or herb was used for initiation of lactation and no such medicine is in use for maintenance of lactation. The animal not experienced estrus or pregnancy, though letting down milk continuously with a definite pattern. A detail study of genetic, hormonal and other biochemical parameters of blood and milk may help to identify the actual reasons behind this.

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