

## **EXTENSIVE UDDER EDEMA MANAGEMENT IN JERSEY X SAHIWAL CROSSBRED COWS UNDER FIELD CONDITIONS**

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### **ABSTRACT**

The present paper records an extensive edema in Jersey x Sahiwal cows maintained by the farmers under field conditions. The average SCC of left fore, left hind, right fore and right hind quarters were 75476.54, 95705.26, 126151.77 and 46526.28 cells/ ml of milk respectively. The milk samples collected from swollen quarters of the cows showed negative reaction to all the four quarters for california mastitis test as well as for fungal growth. The edema due to obstruction of the venous flow resulted from pressure of the fetus in the pelvic cavity of the cows recovered immediately at calving. But the extensive edema persisted for five days and resulted in reduction of milk yield. The edema is reduced after the treatment of cow for a period of five days in Jersey x Sahiwal crossbred cows.

**KEY WORDS:** Udder edema; crossbred cows; milk quality.

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### **INTRODUCTION**

Affections related to udder are to be given paramount importance as these affect economic conditions of farmers. Among different conditions, affecting mammary system udder edema is one of the important conditions, which clinically appears as an excessive accumulation of fluid in the interstitial spaces. It results in decreased milk production and makes

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calves difficulty while suckling. Farmers also feel difficulty while milking. Jones *et al*, (1984) stated that this condition is related to circulatory disturbance with multi factorial etiology like inheritance, decreased blood circulation and nutritional alterations.

Udder edema is common condition which affects economic condition of dairy farm (Jonson and Otterby, 1981 and Dentine, 1982). Udder edema leads to losses in dairy industry due to decreased milk production and difficulty in suckling and milking.

In the present paper the extensive udder edema and the successful management are discussed.

## **CASE HISTORY AND OBSERVATIONS**

A field survey was conducted in Thavanampalli Mandal of Chittoor district. In total, six Jersey x Sahiwal crossbred cows with the history of severe swelling of the udder for the past 3 days before parturition and reduced milk yield were selected from three villages of Thavanampalli Mandal based on the congestion and swelling of the udder.

Detailed clinical examination revealed the average rectal temperature, pulse rate, respiration rate as 100.2 °F, 66.5 per minute and 22.5 per minute respectively. The skin of the udder was congested and swollen, smoothly enlarged and full of colostrum. All the four quarters of the udder were swollen and a slightly distended from the rear udder towards the umbilicus (Fig). The cows exhibited pain on palpation of udder and pitting on pressure. Milk from affected quarters was white, clear and normal in consistency without any clots. The condition was diagnosed as udder edema based on the symptomatology. The milk samples collected from all the four quarters of the cows were tested with California mastitis test (CMT), somatic cell count (SMC) and cultural examination. All the crossbred cows were isolated from the other animals and subjected to same line of treatment.

**Photograph shows the udder edema in crossbred cow in field conditions:**



**TREATMENT**

The cows suffering from udder edema were isolated from the herd and housed separately. All the cows were treated with frusemide 500 mg I/M once a day for four days and dexamethasone 20 mg I/M daily for three days. The edema portion of udder was massaged for 15-30 minutes twice daily. Hot and cold water was applied over the edematous portion of the udder to increase the blood flow.

**DISCUSSION**

The size of the udder (swelling) of all the cows was monitored daily. Later the edema was reduced to near by normal size after 5 days of treatment. It is reported that in majority of the cases, the udder edema resolution takes place with in a day or two after calving, but in the

present study the edema was extensive and persisted for a period of 5 days which resulted in reduction of milk yield.

The obstruction of the venous (blood) flow resulted from pressure of the fetus in the pelvic cavity might be the primary cause of edema in individual cows which recover immediately at calving. In case of herds, the diagnosis of the cause of edema is found to be difficult. The findings in the present study were in accordance with the observations of Thakur *et al* (1989), and Neelesh Sharma *et al* (2005) in Sahiwal cows, where as Shivaprakash (2007) reported the similar findings in Holstein Friesian cross breed cow suffering from prepartum udder edema.

The CMT showed negative reaction to all the four quarters. The average SCC of left fore, left hind, right fore and right hind quarters were 75476.54, 95705.26, 126151.77 and 46526.28 cells/ ml of milk respectively. Samples collected from the cows did not reveal any fungal growth.

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