

ACQUIRED CONTRALATERAL TEAT SPIDER IN A COW AND ITS SUCCESSFUL TREATMENT

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Case History

A cross-bred (Sahiwal x Freisian) cow (Annual No. 793, dated 13.08.1998), aged approximately 5 years was brought to the outdoor clinics of the Department of Veterinary Clinical Medicine and Surgery with a history of agalactia from two of its teats (left-front and right-rear). The cow had calved a day earlier and it was her second calving. On enquiring from the owner, it was learnt that the animal had been suffering from mastitis near the end of her first lactation, for which she was treated with local and parenteral antibiotics. According to the owner, the other two teats had normal consistency and milk let-down.

Clinical Examination and Laboratory Findings

A thorough examination of udder and teats was conducted to ascertain any defect of the glandular and teat substance, which were found to have almost normal consistency. There was a significant reduction in size of affected teats especially the right-rear (RR) teat which seemed to be tucked up. In the left-front (LF) and RR teats, an unusual ring-like structure was felt just near the base of the teat leading into a sinus like cavity. The affected teats were soft and would invaginate on upward pressure exerted with the middle finger. According to the owner, agalactia was also observed in these teats. A presumptive diagnosis of mastitis was made and the milk from all teats was subjected to Surf field mastitis test (SFMT; an indigenous alternative to CMT) (Muhammad *et al.*, 1995). Only a few drops could be collected from LF with the help of a siphon whereas RR teat did not void even a single drop. An obstruction was felt in both the affected teats while passing siphon through the teat cistern into the gland sinus. SFMT revealed a mild reaction in left-rear (LR) and right-front (RF) whereas a gel formation was seen in LF milk.

Diagnosis and Treatment

The cow was diagnosed as suffering from contralateral teat spider resulting possibly from untreated mastitis in the previous lactation. The diagnosis could

have been confirmed radiographically (Alacam *et al.*, 1990) but owing to its limited efficacy (63%) (Ducharme *et al.*, 1987), it was not attempted. For treatment, both teats were meticulously prepared for a routine surgical intervention (Nigam and Tyagi, 1973; Alacam *et al.*, 1990). A Hudson's teat spiral was then introduced into left-front (LF) teat upto the obstruction for deep penetration with four revolutions. The teat spiral was then withdrawn with a jerk. The same procedure was repeated in the other affected teat (RR). A sufficient quantity of milk from both operated teats was then stripped out retaining only a small quantity of milk in the teats. Both teats were then infused with a lactating cow intramammary antibiotic ointment containing Cefuroxime sodium (Spectrazol, Pitman Moore, UK). Post-operatively, the owner was advised not to milk out the animal completely for at least two days. A normal milk flow was then seen on 3rd postoperative day with restoration of the teat's length and consistency.

DISCUSSION

Teat spider (membranous obstruction of teat) is met with in buffaloes and cows as a congenital as well as acquired anomaly (Johnson, 1988; Singh *et al.*, 1993). When congenital, the condition is associated with improper development of the teat cistern or teat canal, whereas acquired obstructions are caused by injury, tumour or infections (theilitis, cisternitis or mastitis). A ratio of 0.7:99.3 has been recorded by Alacam *et al.* (1990) for congenital and acquired teat obstructions, respectively. The resulting membrane, obstructing the milk flow, is either thin or thick, and is located high at the base of the teat or lower down the cistern. Palpation reveals fluctuating milk above the obstruction but milking is not possible. If the condition is congenital with improper development of the teat cistern, it may not be possible to feel the milk pocket. Treatment in such cases is not rewarding and the quarter is usually allowed to atrophy and become non-functional. If the pocket of milk can be palpated, prognosis is usually considered good to favourable. According to Alacam *et al.* (1990), surgical treatment through the teat orifice was successful in 67 of

the 80 (84%) cases operated. After rectification with Hudson's teat spiral or small teat bistuory, complete milking from the affected quarter is not recommended for 2-3 days in an order to avoid a stricture. Flow of the milk itself keeps the teat cistern patent (Singh *et al.*, 1993).

Though the teat spider is met with in the animals with a lower frequency, yet contralateral teat spider in bovines has not been reported heretofore. A possible involvement of mastitis in the development of teat spider warrants the use of dry-cow intramammary antibiotic ointments at the end of lactations.

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