

# CALF MORTALITY IN CAMELS: A REPORT

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Disease contributes a major limiting factor in camel production and management. Mortality in camels was reported earlier by Khanna *et al* (1992) and Mehta *et al* (2003). Neonatal preweaning mortality in dromedary herds reared in traditional systems is reported to vary from 10-30% (Arthur and Al Rahim, 1982). The present study reports the causes of calf mortality in camels below one year of age among different breeds of either sex over a decade (1994 - 2004). The causes of calf mortality as well as the per cent incidence over different years were recorded. The epizootiological data regarding age, sex and breed were noted and statistically analysed using chi-square test (Snedecor and Cochran, 1994).

## Results and discussion

The per cent incidence and the epizootiological relations of camel calf mortality among different years were presented in Table 1. Over a decade the per cent mortality in camel calves under one year age group was 16.06%. Nagpal and Purohit (2001) reported an overall disease incidence of 16.75% cases

under field conditions. Highest incidence of calf mortality was noticed in 0-3 months of age followed by 6 months to 1 year and then by 3-6 months. There was a significant variation in the age groups revealing highest incidence in 0-3 months age group. The results were also on par with the findings of Khanna *et al* (1992) and Nagpal and Purohit (2001) who also observed that higher mortality rate in calves in 0 - 3 months of age and below 6 months of age, respectively. This shows that neonatal calves are more susceptible for mortality and require utmost care and nursing during this period. No significant variation was noticed between male and female calves, even though males showed higher incidence compared to females. The findings were similar to those of Khanna *et al* (1992). Mehta *et al* (2003) also observed higher mortality rate in male camels in the organised herd. Among the breeds, Bikaneri breed showed highest calf mortality followed by Jaisalmeri, Kachchhi and Crossbred. There was no significant variation among breeds in relation to calf mortality.

**Table 1.** Incidence and epizootiology of camel calf mortality (1994-2004).

YEAR	No. of calves born	Total calves died (<1 year)	% calf mortality	AGE*			SEX		BREED			Cross bred
				0-3 months	3-6 months	1/2-1 year	Male	Female	Bikaneri	Jaisalmeri	Kachchhi	
1994-1995	20	9	45.00	5	4	-	5	4	4	2	1	2
1995-1996	42	1	2.38	1	-	-	1	-	-	-	1	-
1996-1997	20	3	15.00	-	2	1	2	1	2	1	-	-
1997-1998	35	3	8.57	1	-	2	1	2	1	1	1	-
1998-1999	27	3	11.11	1	-	2	3	-	2	1	-	-
1999-2000	48	7	14.58	3	1	3	3	4	6	1	-	-
2000-2001	23	9	39.13	9	-	-	6	3	3	5	-	1
2001-2002	35	4	11.42	4	-	-	1	3	2	1	1	-
2002-2003	33	4	12.12	3	-	1	2	2	1	2	1	-
2003-2004	22	6	27.27	6	-	-	5	1	1	3	1	1
Total	305	49	16.065	33	7	9	29	20	22	17	6	4
% mortality				10.819	2.295	2.950	9.508	6.557	7.213	5.573	1.967	1.311

\* (P<0.05)

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The results of per cent etiology of calf mortality in camels were presented in Fig 1. The camel calves in the herd died due to heat stroke (18.367%), impaction (4.081%), encephalitis (6.122%), enteritis (26.530%), pneumonia (40.816%), respiratory distress (2.040%). Pneumonia and enteritis were found to be the major causes of camel calf mortality. Khanna *et al* (1992), Agab (1998), Sayed *et al* (1998), Nagpal and Purohit (2001) and Mehta *et al* (2003) observed higher rate of mortality due to digestive problems. But the camel calf mortality in the present study showed highest mortality rate due to pneumonia, which might be due to the factor that

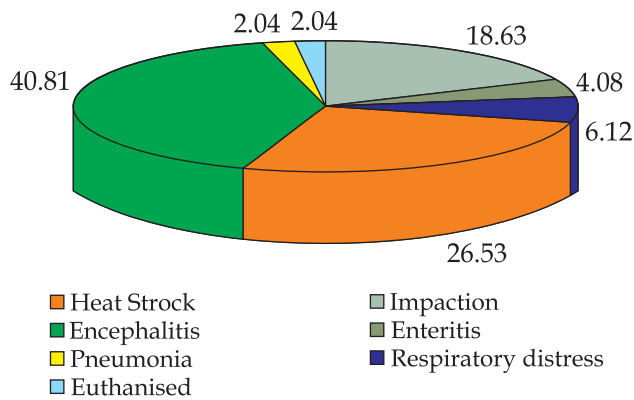


Fig 1. Per cent etiology of camel calf mortality (1994-2004)

calving season of camels usually occurs in winter season.

It is concluded that neonatal care of the calves immediately after birth till 3 months of age is of utmost importance and special care and nursing is required in order to reduce the mortality.

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