

PATHOLOGICAL CHANGES IN MESENTERIC LYMPHNODES IN PARATUBERCULOSIS IN GOATS

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Paratuberculosis (Johne's disease) is a wide-spread bacterial disease of ruminants reported from all over the world. The disease causes significant economic losses in goat flocks reared for meat purpose. Earliest detection and removal of the sub-clinical "carriers" is presently acknowledged as the most important step in control of the disease (Sherman *et al.*, 1989). The insidious nature of the disease and the very high levels of false positive and false negative results observed in serological diagnostic tests makes diagnosis of sub-clinical paratuberculosis very difficult (Chodini *et al.*, 1984), but lymphnode biopsy was advocated as conclusive (Pemberton, 1979).

This study was conducted with the objective of providing information on the histopathological changes occurring in the mesenteric lymphnodes of goats affected with sub-clinical paratuberculosis.

Materials and methods

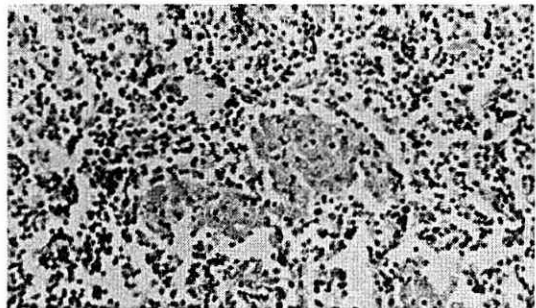
Twelve adult goats from the Kerala Agricultural University Goat Farm, Mannuthy, were utilized for the study. These animals answered the single intra-dermal PPD test as highly positive for Johne's but were apparently healthy and fecal examination and rectal pinch examination did not reveal the presence of *M. paratuberculosis*.

The mesenteric lymph nodes, from all the animals were collected after slaughter in 10% formalin and subjected to detailed gross and histopathological examination.

Results and discussion

The mesenteric lymphnodes from all the 12 animals had moderate gross changes like enlargement (3-4 times) and a soft, pulpy consistency. Similar findings were described by Rajya and Singh (1961) in sheep. Cut sections of the lymphnodes revealed medullary necrosis with medulla encroaching into cortex, as observed in advanced clinical cases of paratuberculosis in goats by Kulshrestha *et al.* (1989) and Krishna *et al.* (1989).

Proliferative lymphadenitis along with focal and diffuse cortical necrosis, and the cortex being infiltrated with sheets of epitheloid cells gave clear indication of a chronic type of infection (Fig.). Similar



changes have been reported by Lenghaus *et al.* (1977) in clinical cases of paratuberculosis in goats. *M. paratuberculosis* could be demonstrated in the sections of mesenteric lymphnodes from all animals.

The histopathological changes in mesenteric lymphnodes along with the demonstration of organism is a clear indication of the status of *M. paratuberculosis* injection in goats.

Summary

The gross and histopathologic changes observed in the mesenteric lymphnodes of twelve adult goats with sub-clinical paratuberculosis is described. The changes were moderate but specific.

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