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Abstract

Concurrent visceral linguatulosis and paratuberculosis was diagnosed in five Alpine Cross goats (Capra hircus). Severe, gross and histopathological changes were observed, with the occurrence of multibacillary paratuberculosis and parasite-induced damage. The PCR-based technique was employed, using IS 900, to confirm paratuberculosis, and light, stereo- and scanning electron-microscopy were carried out to study the third-instar larvae of Linguatula serrata, Frohlich, 1789. The morphological changes were mainly in the intestines and mesenteric lymph nodes and paratuberculosis-associated lesions were principally of a diffuse multibacillary type, with a severe granulomatous reaction, consisting of macrophages laden with large numbers of acid-fast bacilli and variously sized cyst-like spaces in the lymph nodes, histologically associated with the moth-eaten appearance of the parenchyma. Severely oedematous and haemorrhagic lymph nodes, having areas of calcification with profuse numbers of Mycobacterium avium subsp. paratuberculosis (Map), seemed to be characteristic of the concurrent occurrences of the diseases. The present investigation suggests that the parasite, being lymphovorous, might predispose to the multibacillary form of paratuberculosis.