

IMMUNOPATHOMORPHOLOGY OF BOVINE TUBERCULOSIS

Alius Pockevičius, Petras Mačiulskis, Kazimieras Lukauskas

Summary. We have performed *post mortem* examination of 89 cattle, which had presumptive diagnosis of tuberculosis via delayed type hypersensitivity response to bovine tuberculin. The gross findings of tuberculosis were detected in 20 cattle (22 %). Diagnosis of tuberculosis was confirmed by histopathological and bacteriological results, from tissues was isolated *Mycobacterium bovis*. Thorough gross examination granulomatous lesions were detected in bronchial lymph nodes (85 % cases of tuberculosis), mediastinal lymph nodes (80 %), retropharyngeal lymph nodes (30 %), mesenteric lymph nodes (20 %), submandibular lymph nodes (5 %), lungs (45 %), ileum (10 %), liver (5 %). Lymphocytes, epithelioid cells, and giant Langhans multinuclear cells surrounded necrosis in tissue. In 50 % cases of tuberculosis granulomatous lesions in the center of necrosis had outspread mineralisation, in 35 % cases mineralisation was minimal, in 15 % cases mineralisation was not found. In 85 % cases of tuberculosis granulomatous lesions were surrounded with capsule of fibro connective tissue, in 15 % cases capsule was not formed. After examination of tissues with tuberculous lesions by methods of Ziehl-Neelsen, fluorescence microscopy and immunohistochemistry, it was found out, that fluorescence microscopy and immunohistochemical methods were more sensitive for *M.bovis* detection. *M.bovis* infection was confirmed by transmission electron microscopy.

Keywords: cattle, tuberculosis, *M.bovis*, immunopathomorphology.