

Outbreak of Dalmeny disease in a herd of dairy cattle

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Abstract Eosinophilic myositis is a term used to describe an inflammatory condition grossly characterized by focal, green, muscular lesions in clinically healthy cattle. The most frequently affected tissues are striated skeletal muscle, exophagus and heart. Sarcocystis infection has been found in cattle, sheep, horses, and camels. Affected cattle in a dairy herd showed fever, weakness, anemia, loss of the tail switch hair and sudden death of one animal. Necropsy was performed and representative tissues were fixed in 10% neutral buffered formalin, processed by routine methods and stained with harmatoxylin and eosin. Gross lesions were primarily in the heart and striated skeletal muscle and wire characterized by diffuse stippling and streaking of the invocardism with focal, firm, greenish gray discoloration. There were also severe hydropericardium, pulmonary odema and homorrhagic foci in the serosal surfaces. Histopathologic examination revealed multifocal to coalescing myocardial edema, necrosis, lymphohistiocytic inflammation, extensive multifocal areas of skeletal muscle fiber degeneration and necrosis, with occasional mineralization, atrophy and fibrosis. There was, in addition, a marked inflammatory infiltrate composed predominantly of eosinophils. Mature tissue cysts within muscle fibers were not found in the myocardium but were occasionally seen in skeletal muscle. Clinical and histopathologic findings were consistent with those described in Dalmery disease in cattle, which is associated with ingestion of massive numbers of infective 5arcocysts pocysts. The exact pathogenic mechanism of eosinophilic myositis is not yet completely understood, but some authors have shown that there may be a relationship between eosinophilic myositis and a type 1 hypersensitivity reaction to sarcocysts.

Keywords Dalmeny disease, dairy cattle, Iran