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A CASE OF *PROTOTHECA ZOPFII*-MASTOPATHY  
IN A COW: PATHO-MORPHOLOGICAL OBSERVATIONS

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A case of *Prototheca zopfii*-mastopathy in a cow was histopathologically examined, and morpho-pathogenesis of *P. zopfii*-lesions was investigated.

Host cell – *P. zopfii* interrelation: *P. zopfii* reproduced itself within epithelial cells, effecting desquamation of the epithelial cells. Macrophages phagocytized *P. zopfii* and frequently produced subsequent formation of “*P. zopfii*-phagocyte nodule”.

Morpho-pathogenesis of the “*P. zopfii*-phagocyte nodule”: Macrophages may catch *P. zopfii* within the lumens of the alveolus and duct at the site between epithelial cells, and subsequently accumulate and stay directly beneath the epithelium. The macrophage accumulations may effect desquamation of the epithelial cells under circumstance such as loss of tissue continuity and the pressure. The accumulated macrophages may be moved into the interstitial tissues by weakness of the basal membrane and an action of myoepithelial cells. The “*P. zopfii*-phagocyte nodule” may be of aggregations of such macrophages in the interstitial tissues.