

The evaluation of *Entamoeba gingivalis* occurrence in samples from patients with cancer and diabetes

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Entamoeba gingivalis is a protozoan which exists mainly in the gums around teeth, and is usually associated with diseases of the gingival pockets. Some authors claim that it is a commensal organism but can be opportunistic, and the diseases of the gums can increase amebal proliferation. According to others *Entamoeba gingivalis* has parasitic features. There are some reports that *Entamoeba gingivalis* can also cause serious conditions, such as pulmonary abscess. Humans can be infected by direct oral contact and indirectly, for example, by sharing dishes. *Entamoeba gingivalis* does not produce cysts. Trophozoites are 5-35 µm in diameter with the nucleus possessing a kariosome. There are numerous feeding vacuoles in the cytoplasm which contain ingested bacterial cells and leukocytes.

The aim of our research was to estimate the prevalence of *Entamoeba gingivalis* among patients in three different groups: 1. patients with cancer during treatment, 2. patients with diabetes, 3. healthy people as control group.

The dental plaque samples were collected by scraping the area around the surface of the teeth and caries, and close to the gingival crevices with sterile swabs dipped in sterile vials. Microscopic observations were performed two times under dry magnification (400x) using Burker chamber. *Entamoeba gingivalis* was identified by its shape depending on the expansion of pseudopodia formation, sluggish movement and presence of vacuoles. Our findings indicate that *Entamoeba gingivalis* occurs with the same frequency in all three examined groups of patients.