

The prevalence of *Entamoeba gingivalis* in humans and its relationship with oral hygiene in Al-Muthanna province, southern Iraq

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The oral cavity provides a favorable environment for many microorganisms, such as *Entamoeba gingivalis*, which was first described in 1849. It is considered a commensal organism and is transmitted directly via eating utensils and kissing (Wantland and Layer 1970; Robert and Janovy 2000). Gharavi isolated *E. gingivalis* from tonsil crypts in 2004. It was found only in the trophozoite form. It is a parasitic protozoa, most often found in gingival tissue around the teeth in mouths with poor hygiene (Bergquist, 2009). Some investigators consider *E. gingivalis* to be a cause of periodontitis, while others consider it an opportunist, capable of surviving in the median induced by periodontal disease (Elazzouni and Elbrady 1994).

This examination was conducted on 120 samples collected from patients of various ages and both sexes visiting dental clinics in the province of Al-Muthanna. The samples were obtained from the area between the teeth and the surrounding gum using sterile swabs, and were saved in tubes containing 2ml of normal saline. The swab was rolled on a slide, stained with Giemsa stain, and examined under a light microscope (40x, 100x, 200x, 400x). The parasite *E. gingivalis* was diagnosed based on its morphology.

The total infection rate of *Entamoeba gingivalis* was 30% for 120 samples. The infection rate was higher in the 26-35 age group (46.88%) than the 16-25 age group (15.79%). The difference was statistically significant ($P < 0.01$). The prevalence was 50.9% for those who brushed their teeth 0-1 times a day and 14.49% for those who did so 2-3 times a day. The difference was statistically significant ($P < 0.01$). *Entamoeba gingivalis* is relatively common in the oral cavity of patients with periodontal diseases and indicates decreased oral hygiene. Therefore, it is essential to observe oral hygiene to control infections with this parasite.