ISOLATION AND IDENTIFICATION OF LACTIC ACID BACTERIA IN THE PEOPLE’S MOUTH AND STUDYING ON THEIR INHIBITORY EFFECT ON SOME ENTROPATHOGENIC BACTERIA

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Introduction: Predominant organisms in plaques are of the genus Streptococcus, with Streptococcus mutans being the species most important in the formation of dental caries. Another organism that is important in the development of caries is the Lactobacillus. Lactobacillus species are not important in the initiation of caries but in the continuation. The aim of this study was to isolation and identifies of Lactic Acid Bacteria from the mouth in different ages, determination of pH and study the inhibitory effect of Isolated Lactobacilli on some entropathogens (Salmonella, Shigella and Escherchia coli.)

Methods: from 75 persons in different ages, the samples were collected from saliva and around dental and were cultured in MRS medium. Lactobacilli and streptococci were isolated and identified by standard methods (morphology, microscopic shape and chemical characteristics and fermentation of carbohydrates). Growth pH of isolated lactobacillus was determinate. Inhibitory effect of isolated bacteria was evaluated by spot on the lawn, blank disk and well - diffusion methods on Salmonella, Shigella and Escherchia coli.

Results: Isolated lactobacilli were including L. fermentum (29.8%), L. casei (20.8%), L. gasseri (13.4%), L. brevis (14.9%), L. plantarum (11.9%) and L. acidophilus (8.9%), and isolated Streptococci was Streptococcus mutans and also they had acidic pH about 3.4-6.5. Isolated Lactobacilli had inhibitory effect on Escherchia coli but they didn’t have any inhibitory effect on Salmonella, Shigella.

Discussion: According to isolated Lactobacillus from the mouth in different ages defined that isolated Lactobacillus from person who had dental caries, had inhibitory effect on Escherchia coli. For prevention from dental caries we should pay attention to all of the points that are including consumption of dairy (because of calcium and presence of lactobacilli), sweet, brushing teeth daily, and use of floss and nourishing.