BACTERIAL ECOLOGY AS A WARNING SIGNAL FOR INCIDENCE OF PERIODONTAL DISEASES IN EGYPTIAN ADOLESCENTS

Magdy K .Khaled* , Akram A Elawady* , Soliman O Amr* and Magdy K Mohamed**

ABSTRACT

A randomized sample of sixty-six 12-16-year-old adolescents from 3 different locations in Egypt was selected to share in this study. Pocket depth, Plaque-Index, and Gingival Index were recorded from 6 randomly selected sites in each subject (a total of 396 sites). Subgingival plaque samples were subsequently collected from these sites and processed by several assays. For cost reasons, in each pair of sites different assays were performed as follows: sites No. 1, No.2 - BANA test for T. denticola, P. gingivalis, B. forsythus and screening of plaque samples with polyclonal antibodies (ELISA system) for A. actinomycetemcomitans. Sites No.3, No.4 - detection ofyeasts by SAB agar. Sites No.5, No.6 - detection of Entamoeba gingivalis by the Heidenhain iron hematoxylin modified technique. A total of 66% of the children had at least one site that bled upon probing, 42% exhibited at least one site with pocket depth >3 mm, and 79% exhibited a high Plaque Index, with the percent of sites affected being 30%, 12% and 41%. respectively. In sites No.l, No.2 (N = 124), the BANA test assay and A. actinomycetemcomitans tested positive in 77% and 47% of the children accounting for 59% and 31% of the sites, respectively. In sites No.3, No.4 (N = 124), yeasts were detected in 43% of the children and 29% of the sites. In sites No.5, No.6 (N = 124), Entamoeba gingivalis was detected in 21% of the children and in 11% of [he sites. The risk for severe gingival inflammation and/or increased probing depth was 1.5 and 5.2 times higher if a positive BANA test or A. actinomycetemcomitans test was found in a particular site. No associations could be found for yeasts
and Entamoeba gingivalis.

* Ass. Prof. of Oral Medicine and Periodontolgy Dept., Faculty of Dental Medicine, Al - Azhar University .

"* Lecturer of Oral Medicine and Periodonlolgy Dept .. Faculty of Dental Medicine, Al - Azhar University .