

PREVALENCE OF SUSPECTED PERIODONTAL PATHOGENS AND VIRAL INFECTIONS IN CHILDREN WITH NOMA.

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Noma is a severe orofacial gangrene occurring mainly in malnourished children. The purpose of this study was to investigate the presence of selected periodontal pathogens as well as viruses in noma affected children from Niger. 14 cases of acute or previous noma (x age 6.6 yrs), 9 siblings without noma (x age 7.0 yrs), and 5 malnourished children (x age 2.4 yrs) were examined. Samples of dental plaque, saliva, and blood were obtained from each subject. Microbial plaque samples were analyzed by dark field microscopy and by immuno-fluorescence using specific monoclonal antibodies against a panel of 7 selected bacterial species. *P. gingivalis*, *P. intermedia* / *P. nigrescens*, *C. rectus*, and *P. micros* were detected in 9 to 11 of the 14 noma children. *A. actinomycetemcomitans*, *B. forsythus*, and *A. gerencseriae* were found in only 3 to 6 of the 14 noma children. In contrast all siblings of noma children were positive for almost all the bacteria tested whereas all malnourished children were negative. Spirochaetes were observed in 11 / 14 noma children, 9 / 9 siblings but only 1 / 5 malnourished children. Serological analysis showed that all noma children had IgG but no IgM titers against EBV and CMV. All malnourished children presented IgG and most had also IgM titers against EBV and CMV. All children were HIV negative. Cultures of saliva samples from noma children were all negative for CMV whereas malnourished children were all positive. These results suggest that viral infections together with the presence of periodontal pathogens in malnourished children during the weaning could impair the host immune function and permit the spreading of noma.