

R-9. Activity of L-arginine sensitive hemagglutinin from *F. nucleatum* ATCC10953 on aggregation of periodontopathic bacteria

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It is generally recognized that there are amino acids and sugars sensitive about hemagglutinin of *F. nucleatum*. We have purified and characterized L-arginine sensitive hemagglutinin (A-HA) from *F. nucleatum* ATCC10953, and reported the dominant role of A-HA in the adherence of the bacterium both to host cells and to streptococci. However, we have not investigated the concern of A-HA on coaggregation between *F. nucleatum* with periodontopathic bacteria. In this study, we examined coaggregation patterns of *F. nucleatum* ATCC 10953 with periodontopathic bacteria (*A. actinomycetemcomitans*, *E. corrodens*, *C. ochracea*, *P. nigrescens*, *P. intermedia*, *P. gingivalis*, *C. rectus* and *B. forsythus*), and roles of A-HA in the coaggregation. With coaggregation visual assay, *F. nucleatum* ATCC10953 coaggregated with *P. intermedia*, *P. gingivalis* and *C. rectus*, and anti-A-HA antibody inhibited the coaggregation. These results indicate that A-HA is an important factor on the adherence to host cells and coaggregation with periodontopathic bacteria. They also suggest that A-HA may associate with the formation of biofilm.