Aggregative behavior of bacteria isolated from canine dental plaque

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Interbacterial adhesion of bacteria isolated from canine dental plaque was assessed by performing a visual coaggregation assay. Using conditions mimicking those likely to be encountered in vivo, the entire cultivable plaque microbiota from a single dog was assessed, and eight (6.7%) unique coaggregation interactions were detected for 120 crosses. Transmission electron microscopy was used to visualize several of the bacteria in isolation and as coaggregates, which revealed surface structures that may be involved in adhesion and coaggregation. The results of this study indicate that the prevalence of coaggregating pairs of dental plaque bacteria in dogs is similar to the prevalence of coaggregating pairs of dental plaque bacteria reported in humans. In addition, genera found in both hosts generally exhibited similar coaggregation reactions; however, autoaggregation was found to be more common among oral bacteria isolated from dogs.