Editorial

Dental Calculus: A Bacterial Hub

The Surgeon General’s report on oral health highlights the relationship between oral and overall health, emphasizing that oral health involves more than dentition [1]. Mouth acts as a window to a lot of systemic diseases and serves as a port of entry of the various infections that can alter and affect the immune status of the person. The oral cavity has the potential to harbour at least 600 different bacterial species, and in any given patient, more than 150 species may be present, surfaces of tooth can have as many as billion bacteria in its attached bacterial plaque and oral care may not only reduce the microbial load of the mouth but the risk for pain and oral infections as well [2]. Bacterial deposition starts immediately within few hours on cleaned tooth surface and with eventual period of time layering and inter-locking of microbiological colonies lead to development of dental plaque. The process of plaque formation at microscopic level represents a highly ordered and predictable ecological succession and can be divided into three phases as illustrated in Figure 1.

This layered accumulated dental plaque leads to development of dental calculus. The calculus deposited in oral cavity act as a reservoir of oral bacteria that continuously challenges the oral health. Regular oral hygiene practices followed by periodically professional interventions will be the key to prevail over this challenging situation. Current mechanical and chemotherapeutic approaches to oral hygiene aim to modify the oral micro flora to promote healthy periodontal and dental tissues. The objectives are to remove plaque or interfere with its formation to prevent it from becoming pathogenic, at least at 48-hourly intervals, and to deliver chemotherapeutic agents. The shortcoming of this protocol is that the protocol is not followed rigorously that gave the niche for bacteria to grow and accumulate as calculus.

In order to overwhelm this complex situation mechanical oral hygiene practices should be supplemented with anti-calculus Mouth rinse that regularly lay off the buildup dental calculus. The novel patented Mouth rinse like Periogen proved to be a great product for maintaining long term oral hygiene. Clinical study showed that it contains tetrapotassium pyrophosphate and sodium tripolyphosphate as the anticalculus agent that provides a clinically relevant reduction in calculus formation in subjects with a moderate rate of such formation [3]. More emphasis should be laid on eliminating the bacterial hub such as dental calculus in order to maintain the good oral hygiene especially between the professional prophylaxes. Technology and research today provide openness to safe, affordable and effective anticalculus Mouth rinse (Like Periogen) that can be a potential turning point in maintaining oral hygiene.

Oral health is an integral component of overall systemic health. Plethora of scientific evidence, clinical research and experimental studies confounded that there is bi-directional influence of oral and systemic health. Good oral hygiene is the fundamental for oral integrity as it greatly affects the quality of life [4].

References