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## TO ASSESS RELATIONSHIP BETWEEN MATRIX METALLOPROTEINASE-9 PROMOTER GENE POLYMORPHISM AND CHRONIC PERIODONTITIS

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Periodontal diseases contribute significantly to the global burden of oral diseases. They are initiated by microbial plaque which accumulates in the gingival crevice region and induce an inflammatory response. The primary inflammation i.e. gingivitis may progress in certain susceptible individuals to the chronic destructive inflammatory condition termed as periodontitis where bone and other tooth-supporting tissues are destroyed and the changes are irreversible. Studies have substantiated the relationship between matrix metalloproteinases (MMP's) and periodontitis by showing the presence of elevated levels of MMP -1, -2, -3, -7, -8,-9 in tissues and gingival crevicular fluid (GCF) of chronic periodontitis patients. 18, 19, 20, 21, MMP-9, also known as gelatinase B or 92-kDa type IV collagenase plays a significant role in breakdown of type IV collagen as well as the basement membrane through its gelatinase activity. Also MMP-9 promoter gene has effect on MMP-9 formation and activation of the degradation activity in the collagen breakdown. Investigators predict that, information concerning polymorphism will be useful in the prevention and therapy of periodontitis, as well as in the early recognition of patients who are in need of more comprehensive therapy. Hence in the present study we aim to evaluate the association of MMP-9 promoter gene polymorphism in generalized chronic periodontitis patients of an Indian population belonging to same city.

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