EFFECTIVENESS OF MINOCYCLINE AND DOXYCYCLINE INCORPORATED BIOABSORBABLE MATERIAL ON PERIODONTITIS - A COMPARATIVE STUDY

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The importance of bacteria in the etiology of periodontal disease has been clearly established,[4] and as a result therapy is necessarily directed at controlling the bacterial flora associated with periodontium/tooth interface.[14] Despite decades of investigating different forms of therapy, the optimal management of periodontal disease remains to be established. Although the most widely used and also successful approach has been mechanical cleaning methods, they often leave behind significant number of pathogenic bacteria and further more, recolonization of pathogens can occur as early as 60 days after oral prophylaxis.[3] The advances in disease etiology and pathogenesis have led to treatment strategies aimed at elimination of pathogenic flora or suppression of destructive host response.[4] The development of chemotherapeutic agents such as antimicrobials offer clinicians, potential adjuvant to traditional treatment modalities.

Systemic administration has been useful in treating periodontal disease, but repeated, long term use of systemic antibiotics is fraught with potential danger including resistant strains and superimposed infections.[2] Local application of drugs therefore provides a useful answer to these problems.

In the field of local drug delivery, of late the controlled drug released formulations are rapidly gaining importance. They are mainly available as Reservoir devices (membrane diffusion systems), Monolithic devices, Gels and Hybrids.[5]