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## Adjunctive photodynamic therapy for treatment of localized chronic periodontitis

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**Background:** Adjunctive treatment modalities are often required to supplement mechanical periodontal therapy as it often fails to debride completely the deeper pockets and furcations. Photodynamic Therapy (PDT), “the light induced inactivation of cells, microorganisms or molecules” has been used as an antimicrobial periodontal treatment on the concept of generating singlet oxygen and free radicals that are cytotoxic to microorganisms, by activating a photosensitizer agent using diode laser. This paper describes a clinical study to evaluate the benefits of using PDT along with Scaling and Root Planing (SRP) compared to SRP alone.

**Aim:** To find out the clinical outcome of photodynamic therapy when used along with conventional non-surgical treatment of localized deep periodontal pockets.

**Materials & Methods:** Thirty patients with periodontal pockets of  $\geq 6$  mm in at least two non-adjacent teeth were included in the study. One of the teeth received PDT after full mouth SRP, while another served as control. Plaque Index, Modified Sulcular Bleeding Index, Probing Pocket depth and Clinical Attachment Level were recorded at baseline, after 1 month and 3 months postoperatively.

**Results:** Significant improvement was observed in both groups in terms of all recorded parameters 3 months postoperatively. At 1 month interval, the inter-group difference was significant in terms of modified Sulcular bleeding index, and Probing Depth which decreased more at sites treated with PDT compared to the test sites.

**Conclusion:** Antimicrobial PDT used along with SRP results in a significant higher reduction in bleeding scores, and pocket depth reduction compared with SRP alone.

### Biography

Farrukh Faraz is currently working as Associate Professor at Maulana Azad Institute of Dental Sciences. He did his graduation in Dental Surgery in year 1997 and subsequently obtained MDS in Periodontitis in July 2002. He has been a merit scholarship holder and has been awarded a number of merit certificates during the graduation as well as post-graduation.

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