

## **POCKET CLOSURE: A MULTILEVEL ANALYSIS OF PATIENTS TREATED WITH NON SURGICAL THERAPY**

**Costanzo L., Citterio F., Romano F., Bosio L., Vittone A., Delle Cave M., Steccanella M., Aimetti M.**

*University of the Study of Turin – Turin – Italy*

The goal of non-surgical treatment is to obtain shallow probing pocket depth without bleeding on probing. Gain of knowledge about factors which have an impact on the outcomes of non-surgical therapy would be beneficial for treatment plan in clinical practice.

The aim of this study was to investigate efficacy of non-surgical therapy and factors affecting the probability of pocket closure 3 months after non-surgical therapy by mean of multilevel analysis.

This retrospective study included the clinical folders of 32 patients affected from stage III periodontitis that completed non-surgical periodontal therapy at the Periodontology Department of the University of Turin. In order to be included in the study complete anamnesis, periodontal charts at baseline (T0) and 3 months after non-surgical treatment (T1) had to be present. Multilevel analysis was used to assess the impact of a variety of factors at patient, tooth and site level on the probability of pocket closure (PPD $\leq$ 4 mm without BOP) at T1.

Pocket closure was attained in 63.4% of diseased sites.

Tooth type (single vs. multi-rooted), % of sites with PPD  $\geq$  5mm, presence of plaque at T1, mobility, furcation involvement, site position (interproximal vs lingual/vestibular) had a significant impact ( $p < 0.005$ ) on pocket closure. In particular mobility  $\geq$  2 degree was the factor which most negatively affected the probability of pocket closure OR 0.17 (CI: 95%, 0,07-0,45%).

Tooth type, plaque at site level, mobility, furcation involvement and site position were significant factors in the determining the probability of pocket closure after non-surgical periodontal therapy.