

Kaplan I, Hirshberg A, Shlomi B, Platner O, Kozlovsky A, Ofec R, Schwartz-Arad D. The importance of histopathological diagnosis in the management of lesions presenting as peri-implantitis. Clin Implant Dent Relat Res. 2015 17 Suppl 1:e126-33.

Abstract PURPOSE: This study is a histopathological analysis of lesions clinically diagnosed as peri-implantitis (PI). **MATERIALS AND METHODS:** This retrospective study included microscopic findings in 117 peri-implant biopsies from lesions presenting clinical and radiographic features of peri-implantitis. **RESULTS:** The study group included 117 biopsies, mean age 55.2 years; 60.9% of biopsies were from failing implants during explantation, the remaining from surviving implants. All cases showed microscopic evidence for inflammation; however, although 41% exhibited only nonspecific inflammation, 29.9% exhibited actinomyces-related inflammation, 18.8% pyogenic granuloma (PG), and 10.3% giant cell granuloma (GCG). Differences in implant failure rates between pathological diagnostic groups were not statistically significant. Lesions with simple inflammation could not be distinguished clinically or radiographically from the potentially destructive lesions. **CONCLUSIONS:** There were no clinical features which could distinguish PI with simple inflammation from potentially destructive lesions mimicking PI, such as GCG, PG, and actinomycosis. However, to control GCG and PG surgical procedures would be recommended, actinomycosis would indicate specific antibiotics, whereas in nonspecific inflammation, these measures may not be indicated. The results of the present study provide evidence for the importance of early microscopic examination of lesions presenting clinically as peri-implantitis, a step toward more accurate diagnosis and improved treatment of PI and lesions mimicking PI.