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Age-related Survival of Fixed Dental Prostheses: 7 to 12 Years Retrospective Study

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Abstract

Objectives: To compare the survival rate of teeth restored with fixed dental prostheses (FDPs) between elderly and non-elderly patients. Additionally, to study the characteristics and frequency of FDP failure in both groups.

Methods: FDP data were collected from patient records treated between 2009-2013. Oral examinations and radiographs were performed, recording success and failure characteristics of the FDPs. The survival rate of FDPs in the elderly compared to the younger group was analyzed using Pearson Chi-square and Fisher's Exact Test at a 95% confidence level.

Results: Out of 155 FDPs, 136 (87.7%) survived, while 19 (12.3%) failed, with an average age of 9.1 years. In the under-60 age group, 107 of 121 FDPs (88%) survived, and 14 (12%) failed. In the elderly group, 29 of 34 FDPs (85%) survived, while 5 (15%) failed. For post-and-core with crown restorations, 20 of 23 abutments (87%) survived, and 3 (13%) failed due to root lesions and fractures.

Conclusions: The overall 7- to 12-year survival rate of FDPs was 87.7%, with no statistically significant differences between elderly (85%) and younger (88%) patients at the 95% confidence level. The incidence of caries, periodontal conditions, root lesions, and the type of restorative material also showed no significant differences between the groups.

Keywords: elderly patients, fixed dental prosthesis, survival rate