

A large-scale observational study to investigate the current status of diabetic complications and their prevention in Japan (JDCP study 6): baseline dental and oral findings.

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Section of Periodontology, Division of Oral Rehabilitation, Faculty of Dental Science, Kyushu University, Fukuoka, Japan 18 grid.267335.6 0000 0001 1092 3579 Department of Periodontology and Endodontology, Institute of Biomedical Sciences, Tokushima University Graduate School, Tokushima, Japan 19 grid.418046.f 0000 0000 9611 5902 Section of Geriatric Dentistry, Department of General Dentistry, Fukuoka Dental College, Fukuoka, Japan 20 grid.258333.c 0000 0001 1167 1801 Department of Periodontology, Kagoshima University Graduate School of Medical and Dental Sciences, Kagoshima, Japan 21 Institution for Advanced Dental Sciences, Tokushinkai Group, Tokyo, Japan 22 grid.136593.b 0000 0004 0373 3971 Department of Periodontology, Osaka University Graduate School of Dentistry, Osaka, Japan 23 grid.411898.d 0000 0001 0661 2073 Division of Diabetes, Metabolism and Endocrinology, Department of Internal Medicine, Jikei University School of Medicine, Tokyo, Japan 24 Otemachi Place Medical Clinic, Tokyo, Japan 15 10 2020 1 2021 12 1 372451 52 61 31 8 2020 15 10 2021 15 10 2021 20 01 2021 29 03 2024 © The Japan Diabetes Society 2020 Japan Diabetes Complication and Prevention prospective (JDCP) study was conducted to examine the association between glycemic control and oral conditions in a large database of Japanese patients with diabetes. It included a total of 6099 patients with diabetes (range, 40–75 years) who had been treated as outpatients between 2007 and 2009. The mean number of present teeth at baseline was 19.8 and women with type 2 diabetes had fewer teeth than men with type 2 diabetes. Within the previous year, 17% of all patients had lost teeth. At baseline, 32% had experienced gingival swelling, 69% had brushed more than twice a day, 37% had used interdental cleaning aids, and 43% had undergone regular dental checkups. Multiple logistic regression analysis indicated that type 1 patients with HbA1c $\geq$ 7.0% were at higher risk of having fewer than 20 teeth (odds ratio [OR] 2.38; 95% confidence interval [CI] 1.25–4.78), and type 2 patients with HbA1c $\geq$ 8.0% also were at high risk of having fewer than 20 teeth (OR 1.16; 95% CI 1.00–1.34), after adjustment for nine possible confounding factors. In conclusion, patients with diabetes were found to be at high risk of tooth loss, and the poorer the glycemic control, the higher the risk of tooth loss in these patients.