

### Dental and Periodontal Status of Patients with Diabetes

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**Introduction:** The link between periodontal disease and systemic/metabolic diseases has been studied extensively in the literature.

**Objective:** To characterize demographic, clinical dental and periodontal parameters in patients with diabetes in the IDF.

**Methods:** This study is part of the Dental Oral Scale (DOS) project. Demographic, dental and medical records of all patients attending IDF dental clinics in 2014 were recorded. These data were compared between patients suffering from diabetes according to the medical record ("Diabetes Machar") and a control group of IDF general military personnel with no recorded diabetes.

**Results:** There were 694 medical records with a diagnosis of diabetes, of those 532 (76.7%) were males and 162 (23.3%) were females. The mean age was 11.04±30.94 and the age range was 18-73. The following parameters were positively associated with a diagnosis of diabetes: male sex ( $p<0.001$ ), age (OR=1.13,  $p<0.001$ ), patients who were born in Israel and West Europe ( $p<0.001$ ), increased BMI (OR=1.17,  $p<0.001$ ), smoking ( $p<0.0001$ ), presence of periodontal disease (OR=2.19,  $p<0.001$ ), (more missing teeth (OR=1.16,  $p<0.001$ ), brushing teeth less than once a day (OR=0.39,  $p<0.001$ ), less decayed teeth [2.41 vs. 3.04,  $p=0.001$ ], more general medical visits [17.53 vs. 12.16,  $p<0.001$ ], more dental clinic visits [16.2 vs. 7.6,  $p<0.001$ ] and more canceled scheduled dental appointments [5.2 vs. 3.14,  $p<0.001$ ].

**Conclusions:** Diabetes was positively associated with age and with common risk factors for metabolic syndrome and periodontal disease, but was negatively associated with the number of decayed teeth. These patients exhibited increased consumption of both medical and dental services, but also higher rates of canceled scheduled dental appointments. Military health authorities should be aware of the high periodontal morbidity in patients with diabetes and refer these patients to evaluation by a dentist.

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### Long-Term Follow-up of Deep Restorations Performed in Military Dental Clinics

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**Objective:** Performing long-term tracking of teeth diagnosed with deep caries cavities ("pulpal caries") and examination of the efficacy of treatment.

**Methods:** This is a retrospective study of medical records. The research was conducted by checking computerized records between 2011-2014 of soldiers examined close to the date of their induction. The data was collected from all soldiers diagnosed with deep caries cavities. Subsequently, their treatment charts were reviewed to see if treatment was performed on these teeth or if additional treatment was deemed necessary during the soldiers' service. Only soldiers treated in the military clinic during their three years of service (and not in civilian clinics) were included in this study. If no additional treatment was prescribed or performed within the soldiers' three years of service, the treatment was considered successful.

**Results:** The study included 1,131 teeth that were diagnosed with pulpar caries. Conservative treatment with deep restoration with or without pulp capping was performed on 291 teeth and 840 teeth were not treated around the time of the caries cavity diagnosis.

Of the 291 teeth treated conservatively, within the three year follow-up period, six teeth subsequently underwent RCT and no teeth were extracted. Of the 840 untreated teeth, 152 underwent RCT (18%) and 13 teeth (1.5%) were extracted (four of which previously underwent root canals).

**Discussion & Conclusions:** In the great majority of cases, conservative treatment of pulpar caries at an early stage successfully preserved the pulp tissue and the tooth structure and thereby enabled the soldier to be free of dental pain during his service.

It is necessary to promote good oral hygiene among new recruits by mandatory dental checkups and treatments. Primary dental treatment of deep caries cavities will increase dental health, preserve tooth function and save time and resources.

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