

## Structure of needs of patients with diabetes in orthopedic treatment

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### Abstract

**The aim** consisted in studying of frequency of visits of the stomatologist by patients with diabetes and structures of their needs in a denture.

**Results of a research.** Within 1 year of the dentist on orthopedic reception visited 380 patients. From them 18 people (4.74%) aged from 18 till 62 years had diabetes and needed prosthetics. Patients with type 2 diabetes asked for the orthopedic help more often and the majority (90%) needed removable prosthetics. Among patients with type 1 diabetes - in the majority it is young people – persons met total absence of teeth.

**Conclusion.** All patients with diabetes need special approach to performing orthopedic treatment. The special plan considering carrying out full sanitation of an oral cavity before prosthetics, the choice of prosthetics of an optimum type and structural material has to be developed for them.

**Keywords.** Diabetes, orthopedic treatment

## **СТРУКТУРА НУЖДАЕМОСТИ БОЛЬНЫХ ДИАБЕТОМ В ОРТОПЕДИЧЕСКОМ ЛЕЧЕНИИ**

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**Цель исследования** состояла в изучении частоты посещений стоматолога больными диабетом и структуры нуждемости их в зубном протезировании.

**Результаты исследования.** В течение 1-го года врача-стоматолога на ортопедическом приеме посетили 380 пациентов. Из них 18 человек (4,74%) в возрасте от 18 до 62 лет страдали диабетом и нуждались в протезировании. Больные диабетом 2 типа чаще обращались за ортопедической помощью и большинство (90%) нуждалось в съемном протезировании. Среди больных диабетом 1 типа - в большинстве это молодые люди – встречались лица с полным отсутствием зубов.

**Заключение.** Все больные диабетом нуждаются в особом подходе к проведению ортопедического лечения. Для них должен быть разработан специальный план, учитывающий проведение полной санации полости рта перед протезированием, выбор оптимального вида протезирования и конструкционного материала.

**Ключевые слова.** Диабет, ортопедическое лечение

**Структура нуждемости хворих діабетом в ортопедичному лікуванні**

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**Мета дослідження** полягала у вивченні частоти відвідувань стоматолога хворими діабетом і структури нуждемости їх в зубному протезуванні.

**Результати дослідження.** Впродовж 1-го року лікаря-стоматолога на ортопедичному прийомі відвідали 380 пацієнтів. З них 18 чоловік (4,74%) у віці від 18 до 62 років страждали діабетом і потребували протезування. Хворі діабетом 2 типи частіше зверталися за ортопедичною допомогою і більшість (90%) потребувала

знімного протезування. Серед хворих діабетом 1 типу - у більшості це молоді люди-зустрічалися особи з повною відсутністю зубів.

**Висновок.** Усі хворі діабетом потребують особливого підходу до проведення ортопедичного лікування. Для них має бути розроблений спеціальний план, що враховує проведення повної санації порожнини рота перед протезуванням, вибір оптимального виду протезування.

**Ключові слова.** Діабет, ортопедичне лікування

Diabetes develops because of the lack of a such hormone as insulin or its adverse effect while its interaction with cells and is referred to incurable endocrine diseases [1-4].

It is important to note that the burden of diabetes doubles every 10-15 years all over the world taking a form of non-infectious epidemic [4]. And Ukraine is not an exception. According to official data about 1,5 million people in Ukraine are diagnosed diabetes.

Such a severe somatic pathology affects/reflects on dental health as well, invading both soft and hard/mineralized tissues of oral cavity [5-9], leading to early loss of tooth and as a result to psychological disorders [10].

**The aim** consisted of studying of frequency of visits of the stomatologist by patients with diabetes and structures of their needs in a denture.

**Materials and methods of research.** Within one year during the dental reception done by the same dentist the numbers of dental observations were made. These observations referred to the patients who asked for orthopedic help because of their suffer from diabetes. Besides the diagnosis of diabetes other secondary pathologies that could influence the development of inflammatory diseases of the oral cavity were not observed in patients.

**Results of research.** Within 1 year of the dentist on orthopedic reception visited 380 patients. From them 18 people (4.74%) aged from 18 till 62 years had diabetes and needed prosthetics. Patients with type 2 diabetes asked for the orthopedic help more often and the majority (90%) needed removable prosthetics. Among patients with type 1 diabetes - in the majority it is young people – persons met total absence of teeth.

As we can see from the table 1 patients with type 2 diabetes asked more often for orthopedic help and the majority (90%) needed removable prosthetics.

But the trouble is that among patients suffering type 1 diabetes the majority is young people (in this case aged under 35) were some people with total absence of teeth. Herewith, the major part of the type 1 diabetics who were partially edentulous patients had quite big defect by length, at which the removable prosthetics is impossible.

**Table 1. Structure of needs of people suffering from diabetes in orthopedic alignment**

Diabetics	Total number (%)	Number of edentulous patients (%)		Needed prosthetics (number of people %)	
		partial	full	complete	removable
Type 1	8 (44%)	6 (75%)	2 (25 %)	3 (37,5%)	5 (62,5%)
Type 2	10 (56%)	3 (30%)	7 (70%)	1 (10%)	9 (90 %)

Consequently, the results of our research showed that almost 5% of the patients who visited orthopedic dental reception were diabetics. And they all needed prosthetics the major part needed removable prosthetics.

It is important to note that the treatment and oral rehabilitation of such people is quite difficult, because almost all they suffer severe periodontic disease, when oral mucosa is strained, the pain threshold is increased, they get tired quickly and their immunity is weakened. And the choice of a kind of dental help and the used materials requires some special knowledge.

**Conclusion.** All patients with diabetes need special approach to performing orthopedic treatment. The special plan considering carrying out full sanitation of an oral cavity before prosthetics, the choice of prosthetics of an optimum type and structural material has to be developed for them.

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