Dental Clinical Allergology

Development of a questionnaire for patients with common allergic diseases in connection with dental treatment

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Изработване на анкетна карта за пациенти с общи алергични заболявания във връзка с провеждане на дентално лечение

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Summary

Introduction: *Modern dentistry is characterized by the individualization of the approach in the diagnostic and treatment process of the patient. The individualized approach means looking into the details of the reactions before, during and after dental treatment of each patient. The prevention of adverse reactions from the use of various conventional methods of dental treatment can only be carried out by dentists who are familiar with the latest trends in dental medicine, emphasizing the detail arising from the general health status of the patient.*

Purpose: *To create a questionnaire to check how informed patients with general allergic conditions are about the availability of the dental clinical allergology specialty as well as about possible allergic reactions resulting from their dental treatment.*

Conclusion: *The creation and distribution of the survey among this specifically defined patient group is a pilot with a tendency to find application in daily dental practice.*

Key words: *dental clinical allergology, survey, general allergology, dental treatment*

Резюме

Въведение: *Съвремената дентална медицина се характеризира с индивидуализиране на подхода в диагностичния и лечебен процес на пациента. Индивидуализираният подход означава вглеждане в детайлите на реакциите преди, по време и след дентално лечение на всеки пациент. Превенцията на нежелани реакции от използването на различни конвенционални методи на дентално лечение може да се осъществи само от зъболекари, които са запознати с най-съвременните тенденции в денталната медицина, акцентиращи на детайла, произтичащ от общоздравословния статус на пациента.*

Цел: *Да се създаде въпросник, който да провери доколко са информирани пациентите с общи алергични състояния за наличието на специалността дентална клинична алергология както и за възможните алергични реакции, произтичащи от тяхното дентално лечение.*

Заключение: *Създаването и разпространението на анкетата сред тази специфично дефинирана пациентна група е пилотно с тенденция тя да намери приложение и в ежедневната дентална практика.*

Ключови думи: *дентална клинична алергология, анкета, обща алергология, дентално лечение*

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Introduction

Nowadays, allergy is one of the most common diseases in the world. Every fourth Bulgarian is affected. Very often it is about sensitization to more than one allergen. Reactions can vary in severity: from very mild without clinical manifestations, to severe and life-threatening. On the other hand, some are of the rapid type and can occur only minutes after contact with the allergen, while others are of the slow type and can take weeks before the onset of symptoms. [1, 2] This makes this group of patients extremely heterogeneous, and each one of them needs an individual approach. Patients with allergic diseases/bronchial asthma, urticaria and angioedema, allergic rhinoconjunctivitis/ in the dental practice belong to a specifically defined group, which represents about 20% of the patient flow in the dental practice.[3] Also, according to Dencheva 2023, the share of patients with allergic symptoms, but without a clinical diagnosis, is extremely high, 43.9%. This unequivocally requires special attention during dental treatment, which must be taken into account with the risk of allergic reactions on the part of the immune system. Specialists in dental clinical allergology can develop a treatment plan that minimizes this risk, taking into account the available information about the general allergic disease and the need to apply certain medications and materials during dental treatment. [4]

Dental clinical allergology is a modern discipline that deals with the etiology, pathogenesis, clinic, diagnosis, treatment and prevention of allergic reactions and allergic diseases with manifestations in the oral cavity, maxillofacial region, as well as with manifestations in other organs and systems. [5] Despite its importance in the dental treatment of patients with common allergic diseases, it is still unknown to a large proportion of patients. Many of them only learn of its existence after being referred to a specialist by their dentist.

Many patients with general allergic diseases do not realize the risks to their health during dental treatment, both in terms of late allergic reactions, which can compromise expensive treatment manipulations, and to rapid and life-threatening reactions incl. allergic shock. In order to find out to what extent patients are informed about the existence of such a specialty, as well as about the possibilities it offers, we set ourselves the task of developing a questionnaire to check their awareness.

Purpose: To create a questionnaire and to check the extent to which patients with general allergic conditions are informed about the availability of the specialty of dental clinical allergology as well as about the possible allergic reactions resulting from their dental treatment.

Structure of the questionnaire

The questionnaire is presented in Appendix 1. At the beginning, there is a field for the respondent‘s name, gender, years, and a field for a telephone number. This allows additional contact with the patient in case of need. Next is a field with a place for the patient to write down his general allergic disease. This allows the respondent to include more than one allergic disease (when more than one allergic diagnosis has been made), as well as to include additional information (eg severity, stage or other specifics of the disease). It is assumed that the patient is well aware of his general allergy diagnosis. In case it is not clear, the field can be completed or supplemented by the interviewer after taking the history of the patient‘s allergic disease. We believe that if the respondent has to choose from a list of diseases, he may not understand the names correctly or choose a disease with a similar name but different from his, i.e. k. some diseases have similar names (eg allergic conjunctivitis and allergic rhinoconjunctivitis).

There are 9 questions, one of which is free-response and the remaining eight are multiple-choice. Two free lines are left for him, in which the patient can tell about previous complaining experiences. The remaining questions have suggested answers below them and a box for each answer. The patient is expected to tick the box that corresponds to their

position. For some of the questions, it is permissible to mark more than one correct answer. Some of the questions probe patients‘ knowledge of the topic, while others reflect their subjective opinion.

Questions

Question 1: „Did you know there is a dental clinical allergology specialty?“ The answers are „YES“ or „NO“. Its purpose is to direct the patient‘s attention to the topic of the survey. When analyzing the data, it will be possible to determine what percentage of respondents have information that such a specialty exists and whether measures are needed to increase information among patients with allergic diseases.

Question 2: „Have you had any cases of allergic reactions after dental treatment and what?“ is the only open-ended question. The patient is asked to list himself the cases in which an allergic reaction occurred in or outside the dental office. The respondent may also describe other incidents which he considers to be due to allergic reactions. This answer shows how familiar he is with the specifics of allergic reactions and whether he is confusing them with another type of adverse reaction. In addition, a connection is made between dental treatment and allergic diseases.

Question 3: „Do you know of an allergy to the following dental medications and materials?“ suggests that the patient recall what dental materials and medications were administered during his treatment. In addition, his attention is directed to the most common materials and medications associated with allergic reactions in dental treatment. In the next dental treatment, he will be careful about the use of some of them and pay attention to the dentist if there is sensitization to them. For example, if a patient has a latex allergy, they will know to inform their treating orthodontist if the treatment plan includes orthodontic elastics. Better informed patients are expected to give more positive responses.

Question 4: „How long after contact with your body do you expect clinical reactions from used dental materials to appear?“ indicates how informed the patient is about the time from contact with the allergen to the onset of symptoms. Here, patients who discriminate between fast-type and slow-type responses would give more than one correct answer.

Question 5: „Do you think you know the symptoms of allergic reactions that may be related to dental treatment?“ reflects the patient‘s personal opinion about his awareness. For some of the respondents, it may provoke an interest in additional search for information. Patients with common allergic diseases are expected to be more familiar with these symptoms than the rest of the population.

Question 6: „Do you inform your dentist that you had/have a general allergic disease?“ indicates how willing the patient is to talk about his allergic disease during the dental history taking. For some patients, the allergic disease is irrelevant to the dental treatment, or they are uncomfortable with it and fail to mention it. Other patients are clearly aware of the importance of informing their doctor. It is important that in case of severe pain or discomfort, the patient may inadvertently fail to inform the dentist. This question highlights the importance of this information even in dental emergencies.

Question 7: „Do you think it is appropriate for your dentist to ask for a consultation with a dental allergist before starting dental treatment?“ expresses the patient‘s opinion and expectations of the dentist‘s actions. It is likely that higher-risk patients and those with more severe diagnoses will be more likely to expect collaboration between the dentist and other specialists than patients with mild diagnoses and mild allergic reactions.

Question 8: „Do you think it is appropriate to conduct an allergy test with medications and materials that will be used in your dental treatment?“ informs patients about the possibilities of objective investigation of sensitization through allergy tests. It also shows the subjective assessment of the patient whether he considers it necessary to conduct such an examination. It is likely that patients with polyallergies and more severe allergic reactions will be more likely to expect such testing to be included before dental treatment. Patients with expensive dental treatment would also probably want to have such an examination done before it begins.

Question 9: „Do you think that your dentist can provide you with adequate first aid in the event of an emergency related to an allergic reaction?“ indicates the patient‘s subjective expectations of the dentist‘s capabilities. This issue is of great importance in patients with severe allergic reactions. This may be one of the reasons for the patient‘s lack of trust in the dentist. The patient can ask his doctor if he is prepared for such situations and warn him if he has had previous similar incidents. This type of conversation can be the basis for premedication and prove important to the smooth progress of dental treatment. Its inclusion in the questionnaire aims to draw the patient‘s attention to allergic reactions, which can be life-threatening and require adequate first aid.

Conclusion

When creating the survey, we tried to select the questions so that we could assess how informed patients with general allergic diseases are about the existence of the specialty of dental clinical allergology and the risks in dental dental treatment, coming not only from the use of local anesthesia, but and from the dental materials and medications used for treatment. The distribution of the survey among this specifically defined patient group is a pilot with a tendency to find application in daily dental practice as well.

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Въпросник за пациенти с общи алергични заболявания във връзка с денталното лечение

Тази анкета е съставена от др Е. Станев и проф. М. Денчева, преподаватели във ФДМ София. Тя цели да проучи информираността Ви за съществуването на специалността дентална клинична алергология и възможните рискове от денталното лечение при използването на различни дентални материали и медикаменти. Вашите отговори са особено ценни за нас като лекари специалисти по детнтална алергология , а също и за лекуващите ви лекари. Анализът на вашите отговори ще са от полза за всички пациенти с подобни на вашето заболяване. На някои въпроси са възможни повече от един отговор. Благодарим ви за участието !

Име:……Пол……
……..

Години.....

Телефон: ……

Общо алергологично заболяване:
……
……
……

1. Знаете ли, че има специалност дентална клинична алергология? □ да □не

2.Имали ли сте случаи на алергични реакции след дентално лечение и какви?
.....
.....

3.Знаете ли за съществуване на алергия към следните дентални медикаменти и материали?
латексови изделия □ да □не цименти □ да □не брекети □ да □не
метални куки на протези □ да □не упойки □ да □не каналопълнежни □ да □не протези □ да □не
ортодонтски ластици □ да □не амалгама □ да □не фотополимер □ да □не импланти □ да □не
металокерамични мостове/корони □ да □не циркониеви мостове/корони □ да □не

4.Колко време след контакт с организма ви очаквате да се проявят клинични реакции от използвани дентални материали?
□ незабавно след контакт с организма □ след няколко минути □ след няколко часа
□ след няколко дни □ след месеци

5.Считате ли, че познавате симптомите на алергични реакции, които могат да бъдат свързани с дентално лечение
□ да □ по-скоро да □ не съм сигурен □ по-скоро не □ не

6.Информирате ли вашия зъболекар за това, че сте имали / имате общо алергично заболяване?
□ винаги □ почти винаги □ в някои случаи □ почти никога □ никога

7.Смятате ли, че е редно вашия зъболекар да поиска консултация със специалист по дентална алергология преди да започне денталното лечение?
□ да □ по-скоро да □ не съм сигурен □ по-скоро не □ не

8. Смятате ли за редно да бъде проведен алергологичен тест с медикаменти и материали, които ще бъдат използвани във вашето дентално лечение?
□ да □ по-скоро да □ не съм сигурен □ по-скоро не □ не

9.Смятате ли, че вашият зъболекар може да ви окаже адекватна първа помощ при възникване на спешно състояние свързано с алергична реакция?
□ да □ по-скоро да □ не съм сигурен □ по-скоро не □ не

Questionnaire for patients with common allergic diseases in relation to dental treatment

This survey was compiled by Dr. E. Stanev and Prof. M. Dencheva, FDM Sofia. It aims to investigate your awareness of the existence of the specialty of dental clinical allergology and the possible risks of dental treatment when using different dental materials and medications. Your answers are especially valuable to us as pediatric allergology specialists, and also to your treating physicians. Analysis of your answers will benefit all patients with similar diseases to yours. Some questions have more than one possible answer. Thank you for your participation!

Name:.....Sex.....
.....

Age.....

Telephone: .....

General allergic disease:
.....
.....
.....

1. Did you know that there is a specialty in dental clinical allergology? □ yes □no

2. Have you had any cases of allergic reactions after dental treatment and what?
.....
.....

3. Do you know of an allergy to the following dental medications and materials?
latex □ yes □no cements □ yes □ no orthodontic braces □ yes □ no
metal hooks on dentures □ yes □ no anestetics □ yes □ no endodontic fillings □ yes □ no
prostheses □ yes □ no orthodontic elastics □ yes □ no amalgam □ yes □ no
fotopolymers □ yes □ no implants □ yes □ no metal-ceramic bridges/crowns □ yes □ no
zirconium bridges/crowns □ yes □ no

4. How long after contact with your body do you expect clinical reactions from used dental materials?
□ immediately after contact with the organism □ after a few minutes □ after a few hours

5. Do you think you know the symptoms of allergic reactions that may be associated with dental treatment?
□ yes □ rather yes □ not sure □ rather no □ no

6. Do you inform your dentist that you had/have a common allergic disease?
□ always □ almost always □ in some cases □ almost never □ never

7. Do you think it is appropriate for your dentist to request a consultation with a dental allergist before starting dental treatment?
□ yes □ rather yes □ not sure □ rather no □ no

8. Do you think it is appropriate to conduct an allergy test with medications and materials that will be used in your dental treatment?
□ yes □ rather yes □ not sure □ rather no □ no

9. Do you think your dentist can provide adequate first aid for an allergic reaction emergency?
□ yes □ rather yes □ not sure □ rather no □ no