

## **R e v i e w**

**by Assoc. Prof. Dr. Elitsa Georgieva Deliverska-Aleksandrova, Ph.D.**

**Department of Dental, Oral and Maxillofacial Surgery, Faculty of Dental  
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member of the Scientific Jury according to Ordinance No. P-109-  
510/29 November 2023 of the Rector of the Medical University – Varna

Regarding: **acquisition of a scientific and educational degree “Doctor”** in the field: Higher education: 7. Health care and sports. Professional direction: 7.2. Dentistry. Doctoral program: “Surgical Dentistry”

On: **Dissertation** on: “Oral Traumatic Lesions”

**Author: Dr. Ivan Nikolaev Dimitrov**, doctoral student, full-time form of education under the procedure for obtaining the educational and scientific degree “Doctor”, Faculty of Dental Medicine, Medical University – Varna.

**Scientific supervisor:** Prof. Dr. Rosen Kolarov, Ph.D.

### **1. General performance**

This review was prepared based on the Ordinance of the Rector of the MU – Varna No. P-109-510/29 November 2023.

The presented set of materials on paper and electronic media is in accordance with Art. 44 (3) of the Regulations on the Development of the Academic Staff at the MU – Varna.

The dissertation consists of 141 pages and is correctly structured, according to the academic requirements adopted in our country: introduction; Literature review; summary and critical analysis; purpose and objectives; material and methods; results and discussion; conclusions; contributions; bibliography, appendices and list of publications related to the dissertation.

The dissertation is illustrated with 62 tables and 79 figures. In the bibliography of the dissertation, 180 literary sources are cited, of which 3 are in Cyrillic and 177 are in Latin.

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The doctoral student has attached 3 publications on the topic of the dissertation, in which he is the first author in two of them, which quantitatively and qualitatively meet the legal requirements for a dissertation.

## **2. Brief biographical data for the doctoral student**

Dr. **Ivan Nikolaev Dimitrov** was born in 1987 in Burgas.

- In May 2012 – graduated from Medical University “Prof. Dr. Paraskev Stoyanov”, city of Varna, Master's degree in dental medicine.
- In the period from July 2012 to September 2017, he works as a general practitioner in dental medicine in the city of Varna,
- part-time Assistant at the Department of Oral and Maxillofacial Surgery.
- In September 2018 – enrolled as a full-time Assistant in the same department.
- In September 2020 – after successfully passing the exams, he was enrolled as a fulltime doctoral student in the “Surgical Dentistry” doctoral program.

He is fluent in English

Member of the Bulgarian Dental Association.

## **3. Relevance of the dissertation**

The dissertation developed by Dr. Dimitrov mainly addresses the issue of oral traumatic lesions, which can sometimes be a challenge in terms of correct diagnosis and clinical behavior. The selected and developed problem is relevant to our medical science and practice and is important for the correct management of this pathology in oral and maxillofacial surgery. Knowledge of these lesions is important for their successful treatment.

## **4. Knowledge of the problem**

In the current dissertation, Dr. Ivan Dimitrov demonstrates in-depth knowledge of the developed topic and skills for independent conduct of scientific research.

The presentation is written in good scientific language. The author has made a detailed and thorough critical analysis of the literature, formulating the discussion and unresolved issues. The literature review is written in 35 pages, is highly informative, and addresses the main traumatic lesions that can develop on the oral mucosa with their main characteristics in the context of the differential diagnostic difficulties that can arise. The author has made a thorough critical analysis of the literature, formulating the unresolved problems. This has enabled the dissertation student to clearly and precisely define the purpose and tasks of his research.

## 5. Research methodology

The purpose of the dissertation is clearly formulated, the tasks are defined correctly, and are carried out using modern research methods. To realize the goal: to characterize the main oral traumatic lesions, clarifying their relationship with certain local and systemic factors. The dissertation student has defined 4 tasks:

**Task No. 1.** To establish the demographic and clinical characteristics of patients with oral traumatic lesions.

**Task No. 2.** To clarify the relationship of oral traumatic lesions with certain local and systemic factors.

2.1. To trace the relationship in patients with oral traumatic lesions and the wearing of prosthetic structures (removable and fixed).

2.2. To clarify the peculiarities in the course of oral traumatic lesions in patients with existing systemic diseases – hypertension and type 2 diabetes.

**Task No. 3.** To determine the effect of the application of a drug spray containing polyvinylpyrrolidone (PVP) in the process of treating oral traumatic lesions.

**Task No. 4.** To characterize the isolated microbial flora and its relationship to the course of oral lesions with traumatic etiology.

The present research was conducted on the territory of the University Medical and Dental Center and the Faculty of Dental Medicine at the Medical University “Prof. Dr. Paraskev Stoyanov”, city of Varna, for the period January 2020 – June 2023. The study is prospective and monocentric in nature and was carried out by the dissertation student together with a team of researchers from the Department of Oral Surgery at the Medical University – Varna.

The clinical material selected for the implementation of the set main goal and tasks and is sufficient for the development of a dissertation and includes 56 outpatients with oral traumatic lesions. The majority of patients sought help from a specialist regarding the specific lesion. In other patients, the described lesions were found during an examination conducted on another occasion, as well as during a preventive dental examination.

The patients included in the study are between the ages of 12 and 83, and among them, there are patients with chronic diseases requiring regular medication, as well as those without the presence of accompanying diseases. All patients participating in the study signed an informed consent form and filled out a questionnaire for conducting the study.

The methods used are carefully selected and are in accordance with good medical practice – *diagnostic* – anamnesis, clinical and paraclinical methods: radiographic, microbiological, laboratory blood tests, *medical* (conservative or surgical treatment), *statistical*.

## 6. Characterization and evaluation of the dissertation work

The results are comprehensively and correctly described, analyzed, and interpreted.

The good visualization and competent approach of the dissertation student in the interpretation of the obtained data make an excellent impression. The discussion of the results and the conclusion demonstrate the thorough clinical judgment, analytical style, and objective personal interpretation of the doctoral student.

The dissertation work is well illustrated with photographic material and ends with conclusions based on the analysis of the results, the discussion, and the generalizations made.

11 important conclusions for clinical practice were made based on the analysis of the study results, namely:

1. Traumatic lesions manifesting as a defect in the structure of soft tissues are more common than exophytic traumatic lesions;
2. The gender distribution of oral traumatic lesions is approximately equal with a minimal female predominance;
3. Oral traumatic lesions are most common at a young age and in the age range of 15-44 years;
4. The most common chronic diseases have a negative relation to the occurrence and progression of oral traumatic lesions;
5. Taking certain medications is also related to the occurrence and development of oral traumatic lesions;
6. Harmful habits such as biting the lips, tongue, and cheeks are a common and neglected cause of oral traumatic lesions;
7. Wearing prosthetic structures is a major factor in the occurrence of oral traumatic lesions, especially in the age over 55 years;
8. The buccal mucosa and gingiva are the most frequent localizations of oral traumatic lesions;
9. Histological examination is a necessary method for specifying the diagnosis of exophytic traumatic lesions;
10. PVP-based medicines used to treat oral traumatic lesions do not accelerate the healing process but have a good effect in controlling pain in this type of lesion;
11. The higher microbial number and the presence of defined pathogenic and conditionally pathogenic microorganisms have a negative effect on the course of oral traumatic lesions.

The results, which are of particular importance for clinical practice, show that:

Due to the nature of the functions and localization, the oral area is predisposed to the development of repeated traumas over time, especially in cases where aggravating factors are present, such as harmful habits, taking medications or their local application, or existing systemic diseases.

The majority of traumatic lesions in patients with prosthetic structures are endophytic in nature, while exophytic lesions are rarer and do not regress despite the elimination of the causative factor. Oral traumatic lesions are more often accompanied by discomfort than pain, and this persists throughout the healing process.

All diseases leading to microcirculation disorders have a negative effect on the development of oral traumatic lesions. From the dissertation and the data from the world literature, it is clear that diabetes as a chronic disease has a key importance for the course of diseases related to oral lesions – the reduced amount of saliva in diabetic patients and an increased tendency to infections (especially in poorly controlled) often common lesions in diabetic patients are candida infection, lingual lichen varices, and prosthetic stomatitis.

The application of the PVP preparation has an effect rather on the feeling of pain than on the healing period of the treated lesions.

Certain microbial agents can have a negative effect on the treatment process of oral traumatic lesions.

## **7. Contributions and significance of the dissertation**

The conclusions, inferences, and contributions made logically follow the results of the conducted research and are significant for the daily ambulatory dental practice of an original and confirmatory nature.

### **Confirmatory contributions:**

1. We have confirmed that the removal of the etiological factor is the main method of treatment of oral traumatic lesions.
2. We have confirmed that the wearing of removable prosthetic structures and the presence of harmful habits are a major factor in the development of oral traumatic lesions.

### **Original contributions to the country:**

1. For the first time in the country, a study aimed at clarifying the factors related to the occurrence and development of oral lesions with a traumatic genesis is being conducted.
2. For the first time in the country, the effect of the treatment of oral lesions with a preparation creating a barrier that isolates the damaged tissues from the damaging factors is being studied.

3. For the first time in the country, a study aimed at clarifying the relationship of the oral microflora to the development and progression of traumatic lesions is being carried out.

### **8. Personal participation of the doctoral student**

I consider the research and observations of patients and the resulting conclusions and contributions in the dissertation work to be the personal work of the dissertation student.

### **9. Autoreferat**

The autoreferat was made in accordance with the requirements of the Development of Academic Staff in the Republic of Bulgaria Act and the regulations of the Medical University – Varna and reflects the content of the dissertation. The tables, figures, and diagrams presented in it accurately reflect the highlights and provide complete information about the study conducted and the results obtained.

The set of materials provided to me related to the dissertation is complete and is in accordance with the Development of Academic Staff in the Republic of Bulgaria Act and the regulations for its implementation, as well as with the Regulations of the Medical University – Varna.

### **Conclusion**

The development of the dissertation work of Dr. **Ivan Nikolaev Dimitrov** on the topic “Oral traumatic lesions” deals with a current and interesting problem for oral surgical practice. The dissertation is well structured, with properly selected methods, and with reliable results and theoretical and applied contributions in dentistry. Excellent knowledge of the clinical picture of oral traumatic lesions and the possible differential diagnosis, as well as accurately selected paraclinical methods (pathohistological) can lead to their successful treatment without allowing an omission or delay in the diagnosis of neoplasias.

The identification of oral lesions is mandatory in order to improve programs promoting oral health and prevention of these diseases in specific population groups by considering the characteristics specific to each group.

It is necessary to follow an algorithm of clinical behavior in oral traumatic lesions according to the type of damaging agent, taking into account the characteristics of individual physical, chemical, and thermal factors, course of development, and comorbidity.

The dissertation contains original and confirmatory contributions, and I consider the data from the obtained results and their interpretation, as well as the presented publications related to it, to be the personal work of the author. Dr. Dimitrov knows modern specialized literature, **demonstrating** qualities and skills for independent conduct of scientific study.

The dissertation meets the criteria for a dissertation and covers the criteria of the requirements of the Development of Academic Staff in the Republic of Bulgaria Act and corresponds to the specific requirements adopted in connection with the Regulations for the implementation of the Development of Academic Staff in the Republic of Bulgaria Act and the relevant Regulations of the Medical University – Varna.

**In conclusion:** I give a positive assessment of the dissertation on the topic “Oral traumatic lesions” and I will vote “YES” for **Dr. Ivan Nikolaev Dimitrov** to acquire the educational and scientific degree “**Doctor**” in the scientific subject “**Surgical Stomatology**”.

Sofia, 12 January 2024

The review was drawn by:

Заличено на основание чл. 5,  
§1, б. „В“ от Регламент (ЕС)  
2016/679

(Assoc. Prof. **Dr. Elitsa Deliverska,**  
**Ph.D.**)