

Review  
from  
Prof. Dr. Tihomir Georgiev, PhD, DSc,

Head of the Department of Oral Surgery, FDM-MU-Varna,  
for a competition for an academic position "Associate Professor" in the field of higher education 7.  
Healthcare and Sports, professional field 7.2. Dentistry, specialty "Dental Implantology"  
To the Faculty of Dental Medicine  
Department of Periodontology and Dental Implantology,  
according to an announcement in the State Gazette, issue 53 of 12.06.2020

The only candidate for participation in the competition is Chief Assistant. Dr. Elitsa Petkova Sabeva-Peeva.

### **Biographical data**

Dr. Sabeva was born on July 5, 1989 in the city of Varna. In 2014 - graduated from the Faculty of Dental Medicine, Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, and in 2016 - acquired PhD in "Therapeutic Dentistry" after defending a dissertation on "Factors affecting the primary stability of intraosseous screw implants." Acquired the specialty "Dental Implantology" in 2019. Currently specializes in Periodontology and diseases of the oral mucosa. Since 2014 she has been an assistant in the Department of Periodontology and Dental Implantology, and since 2017 - Chief Assistant.

### **Scientific production**

Dr. Sabeva has 28 full-text publications. Dr. Sabeva participated in the competition with 13 of these publications, 9 of which she was the first or only author. The articles submitted for participation in the competition have been cited 24 times, and 2 of the citations are in refereed editions. To participate in the competition, the candidate submits a monograph with a volume of 172 pages on "Etiology and treatment of periimplantitis." Dr. Sabeva's dissertation is entirely in the field of Dental implantology.

The main part of the candidate's publications are in the field of the scientific specialty for which the competition was announced, and the rest are in borderline specialties of dental implantology.

The contributions of Dr. Sabeva's publications are:

#### Original contributions

For the first time in the world, she uses infrared thermography to visualize and measure the rise in temperature in the area of the sacrum during the placement of intraosseous screw implants, and to assess the influence of implant design parameters on the amount of heat generated.

For the first time, she used PLA simulated 3D-printed mandibular models to assess the primary stability of intraosseous screw implants placed in them.

She found that when the diameter of the implants was increased by 0.7 mm, primary stability was observed, which was similar to that observed when their length was increased by 2 mm.

#### Confirmatory contributions

She confirms that with increasing implant diameter, the primary stability of intraosseous screw implants also increases.

She confirms that with increasing implant length, the primary stability of intraosseous screw implants also increases.

She confirms that the primary stability achieved by increasing the implant diameter is not comparable to that obtained by increasing the length of the implants.

Confirms that implants with a sandblasted and then acid etched surface exhibit higher primary stability than machine-treated implants.

Confirms that implants with a higher threaded profile demonstrate higher primary stability.

Confirms that conical implants have higher primary stability than cylindrical ones with the same other parameters.

Confirms the proportional relationship between the methods for measuring primary stability and the implant diameter.

Confirms the directly proportional relationship between the maximum torque during placement, the measurement of the damping capacity and the implant length, as well as the inversely proportional relationship between the values of the resonant frequency analysis and the length of the implants.

Confirms the high success of both reduced diameter implants and reduced length implants.

Confirms the fact that reduced-size implants can be a reliable alternative to conventional-sized implants in combination with bone augmentation procedures.

Confirms the high survival of implants placed simultaneously with lateralization or transposition of the inferior alveolar nerve. Confirms that neurosensory dysfunction as a result of the procedure is usually transient. Confirms the use of piezosurgical technique during the manipulation.

Confirms the high survival of both implants placed simultaneously with lifting the sinus floor with lateral access, and those placed delayed in the second stage after the procedure.

Confirms the high survival of subperiosteal implants with a long follow-up period.

Confirms that among other procedures to increase the volume of available bone, longitudinal split osteotomy of the alveolar ridge has the lowest survival. It confirms that in over 50% of the cases in which a complication is observed in the longitudinal split osteotomy of the alveolar ridge, it is a fracture of the vestibular bone plate. The method is associated with high average values of marginal bone loss.

Confirms the high survival of implants placed simultaneously with guided bone regeneration.

Confirms that there are no significant differences in the results of periodontitis treatment with additional application of Nd: YAG laser to conventional therapy based on scaling and root planing.

Confirms that the higher thread profile of implants, even with a larger thread pitch, affects the primary stability of implants to a greater extent than their surface modification, taking into account the results of three different methods for assessing the primary stability.

She confirms that implants placed in thicker bone with a thicker cortical layer, as well as implants placed in the lower jaw, demonstrate greater primary stability. In conclusion, we proposed the use of implants with design characteristics that have been shown to improve primary stability in the event of deteriorating bone characteristics.

The need for more research on the efficacy of erbium lasers on the results of periodontal treatment has been confirmed due to conflicting data reported in the literature.

Confirms the use of CAD / CAM technologies for the purposes of pediatric dentistry.

Confirms the benefits of treating dental defects with the help of composites, glass ionomer cements, compomers and indirect restorations.

Confirms the high survival and unstable level of marginal bone in implants placed in bone augmented by autogenous bone block graft. We defined a period of 4 months after the procedure as sufficient for placement of implants in the respective area.

Confirms that guided implant surgery leads to a greater rise in bone temperature compared to the conventional approach, and we have formulated recommendations to prevent bone from overheating during implant surgery.

She confirms that the greatest influence on the results of the resonance-frequency analysis have: bone density, bone-implant contact, implant diameter and the orientation of the transducer of the device.

She confirms that pain and poor shadow in the apical region of the implants are the most common diagnostic signs of retrograde periimplantitis. Confirms the multifactorial etiology of the disease.

She confirms that in both periodontitis and periimplantitis, additional antibiotic therapy may favor the outcome of treatment.

Confirms that the history of periodontitis, the characteristics of the implant surface, the relationship between the implant platform and the superstructure, the use of cementing structures, the

condition of the mucosa around the implants, diabetes and smoking may play the role of additional etiological factors for the development of feathers.

Dr. Sabeva's monographic work treats an important problem for implantology - peri-implant inflammatory processes. The work is the only comprehensive source written on this subject in Bulgarian literature and one of the few in the world. Its volume (270,000 characters without bibliography) significantly exceeds the required minimum, as evidenced by the author's desire for completeness. The same applies to the bibliographic reference to it, numbering 691 sources.

### **Teaching activity**

Dr. Sabeva has 6 years of experience as a regular assistant and chief assistant with a workload exceeding the required minimum.

### **Conclusion**

Dr. Elitsa Sabeva meets the minimum scientometric indicators and the requirements of the Regulations for the development of the academic staff of MU-Varna for borrowing AD "Associate Professor". I will vote positively for Dr. Elitsa Petkova Sabeva-Peeva to take the academic position of "Associate Professor" in the field of higher education 7. Health and Sports, professional field 7.2. Dentistry, specialty "Dental Implantology".

01.10.2020

Prof. Dr. Tihomir Georgiev, PhD, DSc

