

and proximal surfaces. In 4 cases, caries Class II was found (according to the Black classification) and in 6 cases - Class I was determined, respectively. To ensure an effective treatment, Seek&Sable Seek Caries Indicator - Ultradent caries detector was used to highlight the hidden areas affected by caries. It was also used Calcimol lc - base liner. As a treatment method, the layered filling technique was used.

**Results.** According to the study, the efficiency of the treatment was 99.99%, the results being kept until now. Due to the filling material used for the final filling of dental caries - Gradia direct, both the tooth function and aesthetics were restored.

**Conclusions.** The use of caries detector greatly facilitates the preparation of the carious cavity ensuring total removal of the altered dentin.

**Key words:** dental caries, carious cavity, layered filling technique

### **343. CONTEMPORARY CLINICAL AND TECHNOLOGICAL ASPECTS OF THE METAL CARCASSES OF FIXED DENTURES**

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**Introduction.** The development of technology forces us to analyze the manufacturing techniques we use daily. Thus, classical manufacturing techniques are increasingly being replaced by automated production systems that optimize the quality and accuracy of finished work. Initially, the casting technique was based on gold alloys, which were replaced by alloys such as nickel-chromium (Ni-Cr) and cobalt-chromium (Co-Cr). In the last decade, new manufacturing processes using computer-aided design / computer-aided manufacturing (CAD / CAM) are becoming increasingly important for producing biomedical devices and dental prostheses. Co-Cr alloy dental carcasses can be manufactured using two technologies based on CAD / CAM processing: substrate manufacturing and addition manufacturing.

**Aim of the study.** Comparative evaluation of contemporary technological processes in order to optimize the use of fixed dental prosthesis with metal casing.

**Materials and methods.** The present work is based on the results of the complex clinical, paraclinical and prosthetic treatment with fixed works of 10 patients (6 m., 4 w.) and the analysis of the ambulatory files of 50 patients (32 m., 18 w.) with the age between 35 and 65 years, with different types of edentation. Selection of patients included: patients with severe systemic disease, patients with dental injuries coronary patients with fixed dentures, partial edentation patients with different classes according to Kennedy of maxilla and mandible, patients with financial means. In order to study comparatively different metal carcass manufacturing technologies, a Geller study model was developed, the metal mobilizable bin being standard. On this metallic shroud the metal carcass was made by three techniques (casting, milling and SLM). The obtained metal carcasses have been scanned and studied electronically in order to obtain objective data on the comparative accuracy of metallic constructions.

**Results.** According to the data obtained at the end of the study it was found that following scanning and electronic measurements, we obtained the following data: the size of the standard bin V-O 8,435 mm M-D 6,752 mm. Metal frames were made and the internal part measured by casting method the V-O 8,545mm M-D 6,944mm; by SLM printing method V-O 8,305 mm M-D 6,702 mm; by milling method V-O 8,438 mm M-D 6,748 mm.

**Conclusions.** Following the study and obtaining the electronic measurements of all Co-Cr alloy metal carcasses in order to make the fixed works by various manufacturing techniques (casting, milling and SLM) it was proved that all the techniques fall within the clinically acceptable range

(<120 µm). The automated metal carcassing system is more precise than the classic technique, which motivate us to switch to automated dental prostheses.

**Key words:** SLM, milling, casting

#### **344. SEPTICEMIA AS A COMPLICATION OF DIFFUSE PHLEGMON OF THE MOUTH FLOOR**

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**Introduction.** Despite all the steps made in recent decades in the knowledge of pathogenesis, in improving diagnosis and therapy of septicemia, this disease, regardless of the age at which it occurs, is a complex medical problem. We need a multidisciplinary team to solve it, which besides the infectious disease doctor, microbiologist, biochemist, and radiologist, often requires specialists in intensive surgery and surgeons of various profiles. Bacteriology of septic shock records: Gram-negative germs 50-60%, Gram-positive germs 6-24%.

**Aim of the study.** The assessment of clinical and paraclinical picture in patients with phlegmon of the mouth floor, complicated with sepsis.

**Materials and methods.** Analysis of 50 patients who suffered from phlegmon of the mouth floor, who were hospitalized in the Oral and Maxillo-facial Surgery department of IMSP IMU Chisinau between the 2016 and 2017 years. Patients were clinically and paraclinically investigated. Literature analysis of 17 articles, 5 PhD thesis, 3 books.

**Results.** 6 % of all patients examined with phlegmon of the mouth floor were diagnosed with sepsis. Approximately two patients diagnosed with oral phlegmon and complications of this disease die each year in the Republic of Moldova, which accounts for approximately 7% of all patients with this diagnosis. The untreated septic shock lasts for several hours to 1-2 days, with a fatal outcome in 30-60% of cases. According to M. Baş, septicemia occurs in people with a reasonable defense capacity, which is strong enough to fight, develop a local and general inflammatory process, but insufficient to stop the infection from the beginning. In people with collapsed defense, the clinical picture of septicemia is not developed, the infection leads to septic shock violently.

**Conclusions.** 1. There is an imbalance between pro-inflammatory vs anti-inflammatory, coagulation vs. anti-coagulation, oxidative vs anti-oxidative, apoptotic vs. anti-apoptotic systems in patients with severe sepsis. 2. Signs and general symptoms of sepsis are fever higher than 38.3 degrees Celsius; hypothermia lower than 36 degrees Celsius; heart rate higher than 90 beats/minute; tachypnea, hyperglycemia 7.7 mmol/l. 3. The cause of over 90% of the deaths of patients with inflammatory processes in the Oral and Maxillo-facial department is the septic shock resulting in polyorganic insufficiency.

**Key words:** phlegmon, septicemia, oral and maxillo-facial surgery

#### **345. PLATELET-RICH PLASMA UTILIZATION IN DENTAL AND ORAL SURGERY**

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