

In Case Of Clinical Signs Of Pulpitis, Increase The Effectiveness Of Diagnosis And Treatment.

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ANNOTATION

Chronic types of pulpitis disease, causes of their origin, pathogenesis, their comparative diagnosis and treatment measures are being updated. The influence of harmful factors in the development of pulpitis makes them great importance in the strength and time of impact. In addition, the general and local protective forces of the organism are important. Factors that negatively affect the protective function of the pulp include: the patient's age, heredity, the completeness of the diet, past and concomitant diseases, the intensity of caries development, and hormonal activity. The main factor in the origin of pulpitis is the transfer of biological agents and their toxins from the dentin ducts of the dental carious cavity, either through the perforacion fissure, or through the periodontal pocket, sometimes through the blood and lymph flow in infectious diseases, through the tip of the tooth root into the pulp. Proteins with catalytic activity as diagnostic criteria for the condition of the dental pulp are reliable indicators of the condition of cells and tissues that can act as enzymes. Biochemical studies at the stage of initial pulp activity according to examinations the series of enzymes under study is practically no different from their normal activity; it can serve as a prerequisite for pulp storage therapy. Currently, other preparations containing calcium hydroxide and calcium hydroxide are used to preserve the pulp-for example, mineral trioxide aggregate (MTA) materials. Through these materials, laboratory and clinical studies were evaluated, the effectiveness of the use of these materials in the initial treatment was determined.

Keywords: pulp hyperemia, nature of protein pulp biocatalysts, pulp preservative treatment, mineral trioxide aggregate.

PULPITNI DASTLABKI KLINIK BELGILARI FAOLIYANI TASHXISLASH VA DAVOLASH SAMARADORLIGINI OSHIRISH

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ANNOTATSIYA

Pulpit kasalligining surunkali turlari, ularning kelib chiqish sabablari, patogenezi, ularni qiyosiy tashxislash va davo choralari yangilanib bormoqda. Pulpitni rivojlanishida zararli omillarni ta'siri ularni ta'sir kuchi va vaqti katta ahamiyatni kasb etadi. Undan tashqari organizmni umumiy va mahalliy himoya kuchlari ahamiyatlidir. Pulpaning himoya funksiyasiga salbiy ta'sir ko'rsatuvchi omillariga kiradi: bemorning yoshi, irsiyati, ovqatlanish ratsionining to'laligi, o'tkazilgan va yo'ldosh kasalliklar, kariesni rivojlanish intensivligi, garmonal aktivlik. Pulpitni kelib chiqishida asosiy omil bu biologik agentlar va ularning toksinlarini tish karioz bo'shlig'ining dentin kanalchalardan yoki perforacion yoriq orqali, yoki parodontal cho'ntak orqali, ba'zan infekcion kasalliklarda qon va limfa oqimi orqali tish ildizining uchki teshigi orqali pulpaga o'tishi natijasida kelib chiqadi. Tish pulpasi holatining diagnostik mezoni sifatida katalitik faollikka ega bo'lgan oqsillar - fermentlar sifatida harakat qilishi mumkin bo'lgan hujayralar va to'qimalar holatining ishonchli ko'rsatkichlari hisoblanadi. Tekshiruvlarga binoan dastlabki pulpit faoliyati bosqichida biokimyoviy tadqiqotlar o'rganilayotgan fermentlar seriyasi ularning normal faolligidan deyarli farq qilmaydi; pulpani saqlash terapiyasi uchun zaruriy shart bo'lib xizmat qilishi mumkin. Hozirgi vaqtda pulpani saqlash uchun kaltsiy gidroksidi va kaltsiy gidroksid saqlovchi boshqa preparatlar ishlatiladi-masalan mineral trioksid agregati (MTA) materiallari. Bu materiallar orqali laboratoriya va klinik tadqiqotlar baholandi, dastlabki davolashda ushbu materiallardan foydalanish samaradorligi aniqlangan.

Kalit so'zlar: pulpa giperemiyasi, oqsil pulpa biokatalizatorlari tabiati, pulpani saqlovchi davolash usuli, mineral trioksid agregati.

ПОВЫШАТЬ ЭФФЕКТИВНОСТЬ ДИАГНОСТИКИ И ЛЕЧЕНИЯ ПУЛЬПИТА ПРИКЛИНИЧЕСКИХ ПРИЗНАКАХ

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АННОТАЦИЯ

Продолжаются исследования хронических форм пульпита, причин их возникновения, патогенеза, сравнительной диагностики и методов лечения. Влияние вредных факторов на развитие пульпита имеет большое значение с точки зрения их силы и времени воздействия. Помимо этого, важны общие и местные защитные силы организма. К факторам, негативно влияющим на защитную функцию пульпы, относятся: возраст пациента, наследственность, полноценность рациона питания, перенесенные и сопутствующие заболевания, интенсивность развития кариеса, гормональная активность. Основным фактором возникновения пульпита является прорастание биологических агентов и их токсинов в пульпу кариозной полости зуба через дентинные каналы или через перфорационную щель, или через пародонтальный карман, иногда с током крови и лимфы при инфекционных заболеваниях через тройное отверстие корня зуба. В качестве диагностических критериев состояния пульпы зуба выступают белки, обладающие каталитической активностью - надежные индикаторы состояния клеток и тканей, которые могут действовать как ферменты. Ряд ферментов, изучаемых биохимическими исследованиями на стадии начальной активности пульпита по результатам исследований, практически не отличается от их нормальной активности; он может служить предпосылкой для терапии сохранения пульпы. В настоящее время для консервирования мягкости используют гидроксид кальция и другие препараты, консервирующие гидроксид кальция - например, материалы минерального триоксид-агрегата (МТА). С помощью этих материалов оценивались лабораторные и клинические исследования, определялась эффективность использования этих материалов при начальном лечении.

Ключевые слова: гиперемия пульпы, природа биокатализаторов белковой пульпы, консервирующая обработка пульпы, агрегат минерального триоксида.

Introduction. Pulpitis is an inflammatory disease of the dental pulp tissue, which often develops as a complication of untreated caries. Pulpitis is accompanied by severe pain syndrome and is one of the main reasons why patients seek medical attention. Timely diagnosis and proper treatment of the disease are important in preventing periapical complications. The pulp performs a number of important functions that provide trophism and protect hard dental tissues from the effects of aggressive external factors and the internal environment. Currently, there are several difficulties in dentistry practice, namely - a complete diagnosis of the state of the dental pulp, since some forms of pulp pathology develop in the absence of complete clinical signs of the disease, thus it is necessary to develop new diagnostic methods that give the doctor the necessary information about the pathological processes in the dental pulp, inflammation, which allows prescribing adequate treatment. The role of pulp biocatalysts of a protein nature in the development of pathological processes is not sufficiently studied, which determines the novelty of the study. The data on enzyme activity obtained in the study are generalized for their use in the diagnosis of reversible and irreversible changes in the dental pulp and the choice of methods for their treatment. Currently, various drugs are used to preserve the pulp - calcium hydroxide and mineral trioxide aggregate (MTA) materials, etc. Comparative analysis of the physicochemical properties of MTA and materials, clinical assessment of the effectiveness of the use of these drugs in the treatment of primary pulpitis is of scientific and practical interest and is suitable for study.

Purpose of the study. To study the activity of a number of enzymes in the pulp in order to justify the use of pulp-preserving methods for the treatment of primary pulpitis in the normal state of permanent human teeth and with inflammation, using mineral trioxide aggregate and calcium hydroxide materials.

Materials and methods. During biochemical studies, pulp samples from 75 teeth were studied for primary pulp hyperemia (n=24), acute (n=25) and chronic (n=25) stages of inflammation were prepared medically. In the control group, 23 permanent teeth were examined for pulp, taken according to orthodontic and orthopedic

indications. The pulp chamber was opened with a turbine handle, the dental pulp was extracted with a pulp extractor. When working with intact extracted teeth, the tooth was mounted on a gypsum base, the dental pulp was also extracted using a pulp extractor. The pulp tissues were washed in 0.9% NaCl solution. The mixture was homogenized, then placed in a dense sterile plastic tube. The resulting homogenate was centrifuged at 3000 rpm for 15 minutes and the pulps were spectrometrically analyzed for the activity of aspartate aminotransferase (AST), alanine aminotransferase (ALT), lactate dehydrogenase (LDH), alkaline phosphatase (ALP), malate dehydrogenase (MDG), and superoxide dismutase (SOD) in IU/min•g tissue. In the laboratory, 3 materials of domestic production were used for the treatment of primary pulpitis - (Trioxident, MTA canal, Rutdent) and 3 foreign analogues (ProRoot MTA, MTA Angelus Gray, MTA Angelus White. The physicochemical properties of the materials were studied using scanning electron microscopy (SEM), energy dispersive X-ray spectroscopy (EDS), pH measurement and ion chromatography. The clinical study involved 22 patients aged 7 to 35 years with a diagnosis of primary pulpitis. Treatment was carried out using traditional methodology, dividing the participants into two groups. In the first group, patients used the material Trioxident as a treatment pad for the treatment of primary pulpitis. In the second group of patients, a paste based on calcium hydroxide was used. Monitoring of the results of treatment was carried out after 7 days, 1 month, 6 months. The research data were statistically processed (SPSS).

Results of the study. According to the data of a biochemical study for hyperemia, the activity of SOD, Alp in the pulps of permanent teeth of humans reliable ($p < 0.001$) ALT activity significantly increased ($p < 0.05$) decreased and activity MDG, LDG did not differ significantly ($p \geq 0.05$) from the data obtained in the study of the control group. In acute pulpitis, a reliable ($p < 0.05$; $p < 0.001$) increase in the activity of LDH, Alp and a decrease in the activity of MDG, Alt were observed. In chronic pulpitis, a reliable ($p < 0.05$) decrease in the activity of AST, Alt, Alp and LDH was detected, which indicates a decrease in the intensity of all metabolic processes. In unspecified acute and chronic cases, reliable ($p \geq 0.5$) differences in the activity of SOD were observed in pulpitis and normal. According to laboratory analysis of materials, mineral trioxide aggregate of domestic and foreign production was determined by scanning electron microscopy, all studied cements are based on the Portland cement phase, but they have different additives in their composition. For example, in the composition of the material Trioxident is a copper-calcium hydroxide compound, which increases its bacteriostatic properties. In EDS analysis, sulfur peaks were detected in Proroot MTA and Trioxident materials, which indicates the presence of a sulfate phase in these materials; the addition of calcium sulfate is carried out in order to extend the plasticity time of the cement. The greatest porosity of the surface was determined in Proroot MTA materials. The method of pH measurement and ion chromatography revealed that the Trioxident material has the highest pH value of 12.8. According to X-ray examination, all materials were detected, however, the X-ray contrast, X-ray permeability of Angelus MTA material. White was reduced due to the absence of bismuth oxide in the composition. For the results of laboratory analysis from all sides, the Trioxident material was selected for further use in clinical studies. According to data, in 90% of cases, a successful outcome was recorded in the treatment of patients in the first group. EOD indicators improved and after 30 days 20 μm decreased to 5-8 μm . A successful outcome in the second group of patients 63 was percent. No complications were detected in the immediate period after treatment of teeth with the use of the drug based on calcium hydroxide. After 6 months, an inflammatory reaction occurred in four patients. EOD decreased to 70.0 μA , which was the basis for endodontic treatment of the tooth. The percentage of complications in the second group of patients was 37% for the entire treatment period.

Conclusion.

The results of the study show that in acute and chronic inflammation of the dental pulp, cell regeneration is not observed, biochemical indicators indicate the development of irreversible processes. The activity of the studied enzymes in the initial pulpitis stage is practically no different from their normal activity, which can serve as a prerequisite for conducting pulp preservation methods in clinical dentistry. Pulpitis is a severe form of inflammation of the dental pulp, which, if not treated in a timely manner, leads to periodontitis and tooth loss. Correct diagnosis and rational endodontic treatment allow you to save the tooth. Analysis of laboratory materials and clinical studies have shown that the Russian analogue of MTA materials "Trioxident" due to its physicochemical properties increases the efficiency and is an effective method of pulp-preserving treatment in the treatment of initial pulpitis.

References:

1. Ahmedov A. A., Shakirov B. M., Karabaev H. K. Early diagnostics and treatment with acute burn sepsis //Journal of Acute Disease. – 2015. – T. 4. – №. 3. – C. 214-217.
2. Buzrukzoda J.D., Kubaev A.S., Abdullaev A.S. Elimination Of Perforation Of The Bottom Of The Maxilla Jaw Sinus With Application Of Osteoplastic Material //CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES. – 2021. – T. 2. – №. 1. – C. 162-166.
3. Islamova N. B., Sh N. N. STUDY OF CHANGES IN PERIODONTAL DISEASES IN POSTMENOPAUSAL WOMEN//Conferences. – 2023. – C. 15-17.
4. Rizayev J.A. Terapevtik stomatologiya. Toshkent.
5. Kamilov H.P. Terapevtik stomatologiya propedevtikasi.
6. Xusanovich C. F. COMPLETE REMOVABLE PROSTHESIS SUPPORTED BY IMPLANTS //European International Journal of Multidisciplinary Research and Management Studies. – 2023. – T. 3. – №. 11. – C. 127 133.