Journal of Biomedical Sciences
Research Article Peer-review, Open Access

Laboratory Diagnosis Methods of Acute Herpetic Candidiasis Stomatitis

Xolmatova Zarnigor Dilmurod Qizi [1]

Gulyamov Doniyor Taxirovich [2]

Raxmatullayeva Dilnoza Utkurovna [3]

Relevance of the study: currently, laboratory diagnostics of candidiasis stomatitis in dental practice are microscopic, Mycological, serological, histological and allergenic methods. Microscopic examination is one of the most commonly used methods of examining patients with candidiasis stomatitis. From the mucous membrane of the mouth, the red border of the lips and caraches serve as a material for studying candidiasis stomatitis. Positive microscopy results are considered when many (more than 10) blastoconidia, pseudogyphs, or true hyphae are detected in one or more visual fields. C. predominates in chronic forms of candidiasis stomatitis caused by albicans. It is worth noting that, according to a number of literature sources, in 96% of cases, in addition to fungi of the Candida type, there is also a microflora of another type from a pathological hearth, the presence of which contributes to a more pronounced manifestation of the disease. A positive result is determined by indicating the type of candida and confirming the diagnosis only in the presence of clinical manifestations. In scientific research work, celtiate candidiasis stomatitis is mainly a superficial process, which in most cases is more preserved in the epithelial layer of the oral mucosa. In this regard, the state of epithelial cells, their ability to resist the aggression of various microorganisms, including fungi of the Candida type, is being studied. Analysis of microscopic data determines the violation of the differentiation process of mucous and subcutaneous epithelial cells in patients with candidiasis stomatitis, a decrease in the number of subcutaneous epithelial cells is noted. Mucous membrane epithelial cells are characterized by yellow cytoplasm, dark, oblong nuclei, and a sharp decrease in their number indicates a violation of the function of the descvamation of the oral mucosa and, as a result, a decrease in its barrier properties. According to literature, Mycological examination is used to confirm the diagnosis - determined through the Saburo environment.

[1,2,3] Tashkent State Dental Institute

Colony White has rounded outlines and clear borders, convex shape, clear and smooth surface, but the isolation of the fungus is considered sufficient mas for laboratory diagnostics, which makes it possible to determine the number of cells in the environment. The specific definition of insulated grease is an important diagnostic criterion and has a complex character. Thus, the sign of candidiasis stomatitis is the norm and signal for observation - by taking 1.0 colonies up to 1000 of the material, 1-100 colonies of the material. Based on the results of scientific research, the resulting grease allows you to identify the microorganisms contained in it, and the type of fungus necessary in clinically difficult cases of identification is studied. It also allows you to determine the sensitivity of fungi to certain antimicotics, which opens the way to more effective results in the treatment of Mycoses. According to a contemporary study, Hi Crome Candida Agar (“Himedia”, India). an express technique has been proposed for the primary isolation and detection of fungi of the Candida type, which involves microscopic and scientific research using. C.albicans, C.glabrata, C.quantification of tropicalis fungi allows effective antimicrobial treatment outcomes to be achieved [62, 223]. One of the methods for detecting yeast fungi, which are one of the triggers of the disease, is the so-called drag-and-drop test, or also the test method for the formation of Sprout tubes. After incubation, the collection of yeast fungi is placed in the mirror and examined, if germ tubes are formed without narrowing at the base of the tube, then the pathogen is C. it is identified as albicans, but 10-15% of strains also have the property of not forming microbial tubes.

Khmelnyskogo O.K. (2005), data show that microbial tube detection in candidiasis stomatitis, and even more pseudomycelia, even the surface of tissues, usually shows the invasive nature of fungal growth. Detection of only blastospores on the epithelial surface in the complete absence of filamentation has the property of fungal saprophytism. According to the scientific literature, the biochemical identification of yeast fungi is based on the ability of Candida fungi to assimilate and ferment carbohydrates. Traditional biochemical methods are reliable but time-consuming, so automated pathogen identification systems and specialized kits are in practice, such as the ARCOS system, which tests carbohydrate assimilation. The collection uses a planchet with 25 substrates, into which a liquid medium containing the microorganisms under study is introduced, the assimilation of the substrate is assessed by the turbidity of the medium. The results are recorded photometrically using a computer, and the strain is studied according to the numbering-code rules. Ready tests on chromogenic agents (representatives of" Candi Select 4"," Albicans ID2"") C. determined by albicans. Olingshan grease is quickly placed in a detection environment, the basis of the test is that the specific enzymes of certain fungi hydrolyze a special substrate that forms colored colonies. C. albicans form bluish colonies and Candida is non-albicans-unpainted, the result is determined after 24-48 hours. Chromogenic agents are located in terms of specificity between the fertilization sample and the assimilation tests, which indicates what type of pathogenic microflora is present, since they are only found in fungi C. Allows you to determine the belonging to the type of Albicans. According to literature, the method of quantitative research is to identify candida antigens isolated using the latex agglutination test. To the bistro-Latex Albicans collection C. albicans are considered to have the reagent property of being latex particles coated with monoclonal antibodies to the components of the cell wall. Agglutination of red particles on a green background is a positive result. In deep Mycoses, serological blood tests are performed when antibody titers increase in the blood along with the microbiological examination method. However, with superficial Mycoses containing candidiasis stomatitis, such an increase does not occur. The search for antigens in the blood is a very expensive and time-consuming method, and therefore has not been widely used in applied medicine. Currently, the polymerase chain reaction grease extraction method is used to diagnose candidiasis stomatitis. By strengthening the DNA fragment located inside the gene, the smear from the fungus is detected within 6 hours from this moment. This method is very sensitive, the diagnosis of candidiasis stomatitis limits its use, ensures that the result is in the minimum amount of fungal DNA with a common carrier. A positive result of histological examination of the material with Gram, Romanovsky, hematoxylin or pas is one of the effective ways that biopsy staining can diagnose candidiasis stomatitis[147, 149]. According to modern literature, intradermal tests are carried out with the polysaccharide antigen of various types of

fungi. The sample is arranged according to the type of Mantoux reaction. The reaction is taken into account 24-48 hours after the test. Ntradermal tests are important in determining the chronic type of candidiasis.

List of literature used

1. Адгезия Candidaalbicans к коррегирующим пластмассам, используемым при ортопедическом лечении съемными протезами / А.Ростока В. Кузнецова [и др.] // Стоматология.-2004.-№5.-С. 14-16.
2. Барышевская Л.А. Лабораторная диагностика кандидозов верхних
3. дыхательных путей / Л.А. Барышевская // Рос.оториноларингология.-2005.- №5(18).-С.32-37.
4. Булкина Н.В. Повышение эффективности терапевтического лечения больных кандидозом полости рта / Н.В. Булкина, А.Д. Панченко // Дентал Юг.-2011.-№3.-С.36-37.
5. Железняк В.А. Антиоксидантная терапия в комплексном лечении кандидоза полости рта: дис. ... канд. мед.наук / В.А. Железняк.- Самара, 2009.-154 с.
6. Иммунологические аспекты эффективности бактериальных препаратов при заболеваниях слизистой полости рта / В.Д. Прокопенко [и др.] //РМЖ.-2002.-Т.10, №3.-С.129-133.
7. Тимофеев А.А. Сравнительная оценка нестероидных анальгетиков, используемых для лечения больных с острыми одонтогенными воспалительными заболеваниями челюстей / А.А. Тимофеев // Совр. стоматология.-2011.-№5.-С.54-58.
8. Тимофеев Н.П. Разработка новых фармпрепаратов из левзеи сафроловидной («Биоинфузия» и «БЦЛ-ФИТО») / Н.П. Тимофеев // Инновационные технологии и продукты: сб. тр.- Новосибирск: НТФ «АРИС», 2000.-Вып.4.-С.26-36.
9. Фаворская Е.В. Роль коррекции иммунного статуса в комплексной терапии пародонтита у больных язвенной болезнью двенадцатиперстной кишки: дис. ...канд. мед.наук /Е.В. Фаворская.- Рязань, 2005.-139 с.
10. Хаитов Р.М. Иммунология / Р.М. Хаитов, Г.А. Игнатьева, И.Г.Сидорович.- М.: Медицина, 2000.-432 с.
11. Чумичева И.В. Современные принципы диагностики и лечения орофарингеального кандидоза / И.В. Чумичева // Детская больница.-2006.- №4 .-С .27-29.
12. Шевяков М.А. Кандидоз слизистых оболочек пищеварительного тракта: клиническое значение и современные методы лечения / М.А.Шевяков
13. Candida albicans adherence to resin-composite restorative dental material: influence of whole human saliva / J.L. Maza [et al.] // Oral Surg.- 2002,- Vol.94,№ 5.-P.589-592.
14. Candida albicans cell surface superoxide dismutases degrade host- derived reactive oxygen species to escape innate immune surveillance / I.E.Frohner [et al.] //Mol MicrobioL-2009.- Vol. 71,№l.-P.240-252.
15. Heterogeneous mechanisms of azole resistance in Candida albicans clinical isolates from an HIV-infected patient on continuous fluconazole therapy for oropharyngeal candidiasis / M. Martinez [et al.] // J. Antimicrob. Chemother.- 2002.-№ 49.-P.515-524.