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ORIGINAL ARTICLE

THE CLINICAL AND MORPHOLOGICAL LESIONS OF THE ORAL MUCOSA AND PERIODONTIUM WITH VIRAL HEPATITIS C

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Abstract

Background: Interest in the study of combined pathology has recently been explained by the accumulation of new facts, the emergence of new information about interorgan, intertissue and intercellular levels of interaction in the system of the whole organism. Studies of the oral cavity in chronic diffuse liver diseases are of great interest to clinicians, since pathological processes developing in the liver, as a rule, lead to organic and functional disorders in the oral mucosa.

The aim of this study was to study the clinical and morphological lesions of the oral mucosa and periodontium in viral hepatitis C.

Material and methods: 196 patients were examined, of which: the control group consisted of 100 patients with lesions of the oral mucosa (OM) and periodontal disease who were not diagnosed with HCV and 96 patients of the main study group. Dental status was studied. A pathological examination was carried out.

Results: HCV patients group included 96 (63.5% males) and non-HCV group - 100 subjects (62.0% males) with lesions of oral mucous membrane. The lesions of lips and oral mucosa were more frequent in HCV than in the non-HCV group – e.g. erosion (13.5% vs 1%), cracks in the mouth corners (42.7% vs 0%), changes of oral mucosa surface (89.6% vs 3.0%), hemorrhages - (78.1% vs 0%) etc.

Conclusion: Thus, during the clinical examination of patients with HCV, the average severity of periodontal damage prevailed. Numerous morphological features can be divided into those that are indicators of the severity and activity of inflammation.

Keywords: *viral Hepatitis C, oral cavity, periodontium, pathological examination.*

Introduction

Interest in the study of combined pathology has recently been explained by the accumulation of new facts, the emergence of new information about interorgan, intertissue and intercellular levels of interaction in the system of the whole organism. In this regard, the question of the connection between diseases of internal organs and oral cavity organs is relevant.[1,2,3]

The last decades of the 20th century and the beginning of the 21st century were marked by a sharp increase in the number of viral liver diseases, especially parenteral viral hepatitis, characterized by a highly chronic course, the development of many complications and mortality, which determined the medical and social importance of the problem of viral hepatitis.[4,5]

The WHO report "Global hepatitis report" (2017) noted that about 325 million people in the world suffer from viral liver diseases, and mortality from them, unlike HIV infection, tuberculosis and malaria, continues to rise [6]. According to WHO data in 1990-2015. Every year in the world, 1.3-1.5 million people died from infections associated with hepatitis B and C viruses, 96% of them from chronic viral hepatitis, including cirrhosis of the liver and hepatocellular carcinoma that developed against them.[7]

Worldwide, 71 million people suffer from chronic hepatitis C. It is most common in the WHO Eastern Mediterranean Region and the WHO European Region, where the prevalence of viral hepatitis C was estimated to be 2.3% and 1.5%, respectively, in 2015. In other WHO regions, prevalence rates of HCV infection range from 0.5% to 1%. In some countries, high rates of hepatitis C may occur among certain population groups. Thus, 23% of new cases of HCV infection and 33% of deaths from HCV are associated with injection drug use. However, national programs to combat HCV do not always cover injecting drug users and prisoners in prisons.[7]

A significant place in foreign literature is given to the study of the manifestation of chronic diffuse liver diseases in the oral cavity.[8] Studies of the oral cavity in chronic diffuse liver diseases are of great interest to clinicians since pathological processes developing in the liver, as a rule,[9,10,11] lead to organic and functional disorders in the oral mucosa.[12,13]

In chronic diffuse liver diseases, changes are also observed in the periodontium.[1,14,15,16]

An important discovery in hepatology was the establishment of the possibility of extrahepatic replication of hepatitis B and C viruses in the cells of the skin and mucous membranes;[17,18] vascular intima; tissues of bone marrow, blood, lymph nodes and spleen. Particular attention is drawn to the evidence of active replication of the virus in circulating macrophages - monocytes. The possibility of extrahepatic replication of HBV and HCV hepatitis does not exclude the possibility of damage to the skin and mucous membranes, including the oral mucosa and periodontal tissue, as evidenced by the detection of HCV RNA in the minor salivary glands and saliva itself.[19]

In the available literature, insufficient attention is paid to such important problems as the influence of foci of chronic infection in the oral cavity on the general condition of patients with HCV. Despite the progress achieved in the treatment of periodontal tissue diseases and oral cavity in patients with HCV, many issues, including changes in the quality of life in these diseases, remain insufficiently studied.[20,21,22] Considering the severity of diseases in which various organs and systems of the patient are involved in the pathological process, it is necessary to develop an integrated approach to the early diagnosis and treatment of diseases of the oral cavity in patients with HCV, defining the place and role of the dentist. Patients with HCV should be under regular joint supervision of doctors of various specialties, in particular, infectious disease specialists, dentists, etc.[23]

Based on the above, the aim of this study was to study the clinical and morphological lesions of the oral mucosa and periodontium in viral hepatitis C.

Material and Methods

The main base for conducting this dissertation research was the CJSC Infectious Clinical Hospital "Nork", the CJSC Clinical Center "Armenicum" and the Dental Clinic No. 1 of YSMU named after. M. Heratsi of Yerevan from 2011 to 2019 196 patients were examined, of which: the control group consisted

of 100 patients with lesions of the oral mucosa (OM) and periodontal disease who were not diagnosed with viral hepatitis C (HCV) and 96 patients of the main study group.

Patients underwent traditional methods of clinical and laboratory examination, including a general blood and urine test, biochemical blood tests: determination of total bilirubin and fractions, alanine aminotransferase (ALT), aspartate aminotransferase (AST), alkaline phosphatase (ALP), ɤ-glutamyltransferase (GGT), total protein and fractions, coagulograms.

The final diagnosis of HCV was established based on the detection of hepatitis C virus RNA in the blood using PCR.

100 patients in the control group were examined: 38 (38%) women and 62 (62%) men. The average age of patients in the control group was 37.99 ± 16.66 (SD ± SD) and 96 patients with HCV: 35 (36.5%) women and 61 (63.5%) men. The average age of the patients was 50.05 ± 13.29 (SD ± SD).

All patients' dental status was studied according to pre-developed criteria, which included an external examination of the lips and corners of the mouth, assessment of the condition of various parts of the oral cavity, the marginal and alveolar part of the gums. An index assessment of the condition of periodontal tissues was also carried out (PI, SBI, OHI-S indices). The OHI-S was used to determine the hygienic state of the oral cavity.

A pathological examination was also carried out. For the histological study of the oral cavity, the cheek area was selected as an example of tissue covered with stratified squamous epithelium and having a pronounced connective tissue subepithelial layer. Tissue pieces were fixed in 10% neutral formalin, dehydrated and embedded in paraffin, according to the standard histological scheme. A series of 5-μm-thick sections were made from the blocks and stained with hematoxylin-eosin and picrofuchsin according to Van Gieson for a general assessment of the condition of the tissues under study. It is well known that the diagnosis and prognosis of the outcome of diseases is primarily based on the study of hematoxylin-eosin sections. Microspecimens were studied with a Primostar Zeiss trinocular microscope under 200, 400 and 1000x (immersion) magnification. Microphotographs were taken using Axio Cam ERc5s (Carl Zeiss - Germany). All signs were studied in accordance with international standards, WHO recommendations and recognized research methods. The criteria for the main pathomorphological changes in HCV that we have studied are the following: inflammatory infiltration, circulatory disorders, ulceration of the mucous membrane with fibrinous deposits, fibrosis of the mucous membrane, dystrophic changes in the squamous epithelium, bone sequestration. Additional criteria included infiltration (lymphoplasmacytic and plasmacytic) and admixture of neutrophils.

Statistical analysis

Descriptive analysis (Mean ± SD for continuous and frequencies/proportion for categorical variables) were computed for all variables of interest. Differences between two groups were evaluated using “chi-square” or “Fisher’s exact” tests for categorical variables and “Wilcoxon signed rank test” for continuous variables. Spearmen correlation was performed for determination of relationships between continuous variables. P-value was considered significant at <0.05 and <0.001 for highly significant results. Analyses were conducted using Excel 2013 and R software.

Results

To study the dental status, patients' complaints and data from a clinical examination of the oral cavity were taken into account, which included: external examination of the lips and corners of the mouth, assessment of the condition of various parts of the OM.

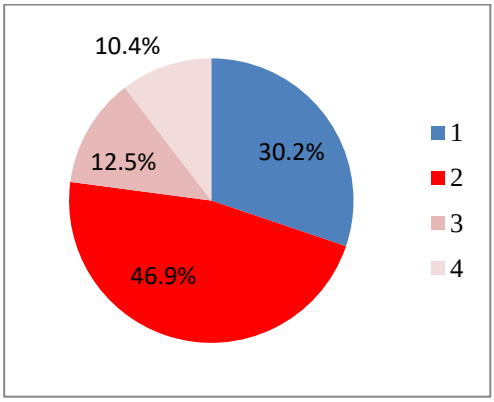
Patients complained of discomfort in the oral cavity, dry mouth, tightness of the lips, soreness in the corners of the mouth, burning and tingling sensations in the tongue, changes in taste, coated tongue, and roughness of the oral cavity.

In patients with HCV, upon objective examination of the lips, the frequency of erosions was 13.5% (13), the presence of cracks in the corners of the mouth was observed in 42.7% (41). The frequency of occurrence of these two indicators in the control group was 1%. Disturbances in the relief of the oral cavity in the examined population with HCV were detected in

89.6% (86), in the control group - in 3% (3). When analyzing the above-described indicators, the difference in data was statistically significant compared to the control group (p <0.001).

HCV had some manifestations that were absent in the control group. Namely, hemorrhages on the buccal mucosa and hard palate were observed in 78.1% (75) of those examined, which was significantly different from the control group, where this sign of damage was not detected (p <0.001). A similar picture was observed with telangiectasia on the buccal mucosa, which was also absent in the control group, and in the HCV, group was detected in 67.7% (65) of patients (p<0.001). Obviously, these signs are pathognomonic for HCV.

In an objective study of the vestibule and the oral cavity itself in patients with HCV, a bluish mucous membrane was detected in 30.2% (29), which significantly and significantly exceeded the same indicator in the control group (p <0.001), bright red - in 46, 9% (45) of those examined, where a statistically significant difference with the control group was also observed (p<0.001). Pink color of the mucous membrane was noted in 12.5% (12) and pale pink in 10.4% (10), which did not differ significantly from the control group (p>0.168) (Figure 1 a, b).



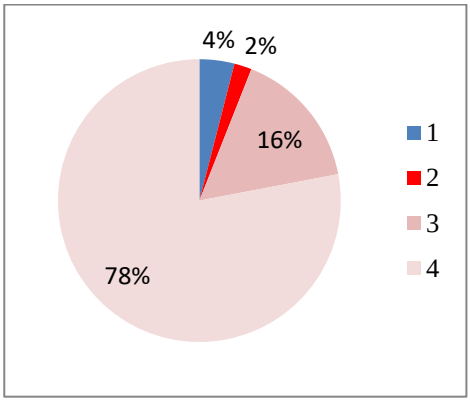


Figure 1 a, b. *Color of OM in HCV (a) and in the control group (b) (1 - bluish, 2 - bright red, 3 - pink, 4 - pale pink)*

The detection rate of inflammatory periodontal diseases (IPD) in the HCV patients we examined was 100%, which was manifested by the presence of a generalized inflammatory process in the area of the marginal and alveolar parts of the gums during an objective examination of the oral cavity. An objective examination of the oral cavity of patients with HCV revealed the following pathological changes in the gums: hyperemia was observed in 19.8% (19), cyanosis in 68.8% (66), swelling in 47.9% (46) of cases. When analyzing these symptoms, a statistically significant difference was determined compared to the control group (p <0.001). Looseness of the gingival papillae was practically not detected either in the control group (only 1% of those examined) or in the group with HCV in 1% (1) (p>1).

Gum atrophy was observed in 51% (49) of the population with HCV, which was statistically significantly higher compared to the control group (p<0.001), where this sign was absent. The noted changes were characterized by a decrease in the volume of tissue of the gingival papillae and gingival margin; limited atrophy was observed in the area of one or two teeth, which manifested itself visually as a V-shaped defect, roller-like thickened edges of the gums, exposure of the neck and root of the tooth, in particular in the frontal area with a predominant lesion incisors and canines.

Bleeding gums were detected in 49% (47) of the examined patients, and in the control group - in 11% (11) of patients. The difference in data was highly statistically significant (p<0.001). Desquamation of the gum epithelium was observed in 2.1% (2) of those examined; this sign of damage was absent in the control group (p>0.239). The described symptom

resembled the clinical picture of desquamative gingivitis with all the characteristic features.

To assess the degree of periodontal damage in patients with HCV, periodontal indices were determined: PI according to Russel, SBI according to Mühlemann and Son, OHI-S according to J.C. Green - J.K. Vermillion (Table 1).

Table 1. Index assessment of the condition of periodontal tissues in patients with HCV and in the control group (SD ± SD)

Indicators	Control group	HCV group
PI, points	0.95 ± 0.48*	4.51 ± 0.64*
SBI, points	1.68 ± 1.66*	3.02 ± 0.1*
OHI-S, points	1.96 ± 0.59#	2.01 ± 0.51#

* p<0,001; #p>0,577

As can be seen from the table, in patients with HCV, the periodontal indices were statistically significantly different from the periodontal indices of patients in the control group. The PI index averaged 4.51 ± 0.64 points, which is 4.7 times higher than the value of the same index in patients in the control group.

The SBI index averaged 3.02 ± 0.1 points, which was also 1.8 times higher than the SBI index for patients in the control group. The difference in data is statistically significant with a high degree of confidence (p<0.001). The OHI-S index in patients with HCV averaged 2.01 ± 0.51 points, which is practically no different from that in the control group (p>0.577).

To determine the hygienic state of the oral cavity in the examined patients with HCV, a survey was conducted, which revealed that 9.4% (9) patients with HCV brushed their teeth 2 times a day - morning and evening, 12.5% (12) - 1 once a day, mainly in the morning after meals, 78.1% (75) of patients noted that they sometimes brush their teeth once a day before meals in the morning or every other day.

According to the OHI-S index in patients with HCV, the level of oral hygiene in 43.7% (42) was defined as bad, in 39.6% (38) - unsatisfactory, in 16.7% (16) - satisfactory. The OHI-S index value of 0 - 0.6, which characterizes good hygienic condition of the oral cavity, was not obtained in any patient with HCV (Table 2).

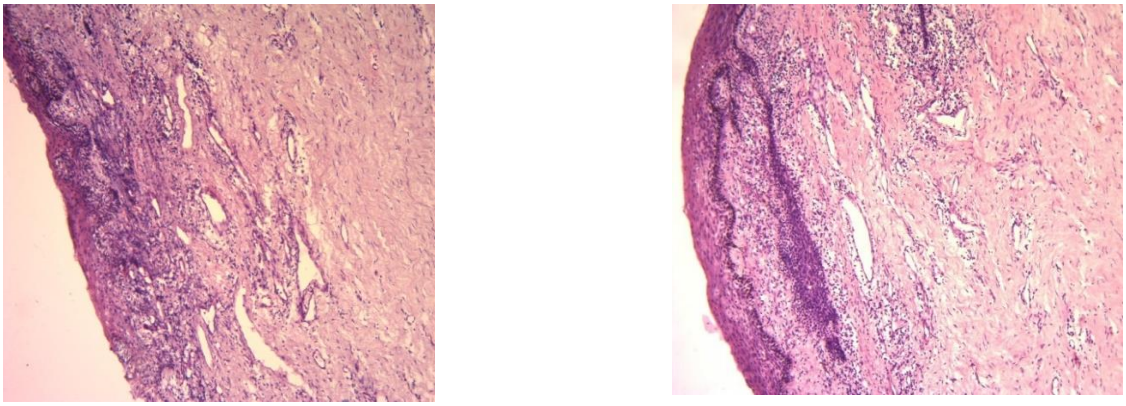
Table 2. Assessment of oral hygiene status according to OHI-S in patients with HCV and in the control group

Group	Hygiene level							
	Good (0.1 – 0.6)		***Satisfied (0.7 – 1.6)***		***Unsatisfactory (1.7 – 2.5)***		***Bad (≥ 2.6)***	
	abs.	**%**	**abs.**	**%**	**abs.**	**%**	**abs.**	**%**
Control group (n= 100)	25	25	48	48	15	15	12	12
Patients with HCV (n= 96)	-	-	16	16.7	38	39.6	42	43.7

As can be seen from table. 2 in patients with HCV, a good level of oral hygiene was not detected with a high degree of reliability in any case (p<0.001), satisfactory and unsatisfactory - almost 3 times less often, and bad - almost 4 times more often (p<0.001) compared to the control.

We identified 6 groups of main pathomorphological changes in the oral cavity in patients with HCV: 1. Inflammatory infiltration; 2. Circulatory disorders; 3. Ulcerations of the mucous membrane with fibrinous deposits; 4. Fibrosis of the mucous membrane; 5. Dystrophic changes in squamous epithelium; 6. Bone sequestration.

In addition to the main pathomorphological changes, we identified such criteria as lymphoplasmacytic infiltration and an admixture of neutrophils. In the oral cavity, the main localization of the pathological process was the mucous membrane of the cheek - in 55%, gums - in 45% of patients. Inflammatory infiltration was determined in the form of lymphoplasmacytic in 90% (18) of patients with HCV, an admixture of neutrophils was noted in 20% (4) of patients with HCV, and ulceration of the mucous membrane was also noted. Circulatory disorders were manifested by edema, hemorrhage, stasis in the capillaries, plethora, and angiomatosis. Obliteration of the lumen of blood vessels, fibrinoid necrosis and fibrinoid swelling of the vessel walls were observed. Changes in the squamous epithelium were in the form of acanthosis, parakeratosis and thickening. The inflammatory infiltrate was represented mainly by lymphocytes, plasma cells and segmented leukocytes. This is a manifestation of both severe chronic inflammation and the participation of immune mechanisms in the development of the pathological process (Figure 2 a, b).



a **b**

Figure 2. *Angiomatosis and lymphoplasmacytic infiltration in the lamina propria of the mucous membrane. Lymphoplasmacytic infiltrate is located predominantly under the squamous epithelium (hematoxylin and eosin staining x 100)*

As the inflammatory process in the oral cavity weakened, bleeding decreased and erosions became epithelialized. Changes due to the development of sclerosis (overgrowth of connective tissue) OM were determined in 95% (19) of HCV. Healing of the oral mucosa occurred against the background of a higher density of newly formed vessels and the appearance of collagen fibers (Figure 3).

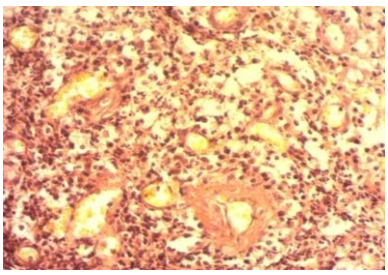


Figure 3. *Severe angiomatosis in the phase of granulation tissue formation (Staining with picrofuchsin according to Van Gieson x400)*

Discussion

There is practically no pathology that does not affect the condition of the OM. At the same time, the similarity of clinical manifestations in the oral cavity of diseases that differ in etiology and pathogenesis contributes to difficulties in making a final diagnosis.[24] Most researchers consider the periodontium as an integral component of the whole organism and recognize the close pathogenetic connection between periodontal diseases and somatic pathology. Patients with periodontitis with concomitant and background diseases require special attention, both in the diagnosis of concomitant pathology, and in treatment and prevention.[25] At the same time, dentists and doctors of other specialties do not pay due attention to the condition of the oral cavity in liver diseases.[26] The experience of dentists in infectious diseases departments has shown that the effectiveness of diagnosis and treatment of lesions of the oral cavity depends on the earliest possible examination of the admitted patient. [27] Dental care for patients, even with an established diagnosis of viral hepatitis, is provided mainly on the basis of referral due to acute pain. There are very few developments on dental tactics for managing patients with hepatitis. In countries with a high level of dental service, experience on this problem has also not been accumulated.[13,28]

The data regarding the condition of the marginal and alveolar parts of the gums in patients with HCV are interesting. As can be seen, of the seven symptoms that we studied, which characterize the condition of the periodontium, five symptoms were reliably most often identified in HIV infection (with the exception of desquamation of the epithelium, which was found in the minimum number of patients in the three main groups of patients).[30] It should be noted that loose papillae were found almost only in patients with HIV infection. The difference in data regarding the frequency of detection of atrophy in the three studied groups is unreliable. Thus, only cyanosis was significantly more often detected with HCV. It is appropriate to note that according to Fedeli U. et al. (2017), who studied the characteristics of damage to the oral cavity and periodontal tissue in patients with chronic liver diseases of viral etiology, with chronic hepatitis and liver cirrhosis caused by the hepatitis B virus, more severe degenerative and inflammatory changes are observed in the oral cavity and periodontal tissues compared to those caused by the hepatitis C virus.[29] Our data indicate that it is probably difficult to make an unambiguous conclusion regarding the comparison of the severity of damage to the oral cavity and periodontium in HCV, because some symptoms are significantly more often detected with HCV.

There are isolated works that describe a few individual signs in a small number of patients. A comparative analysis of data on the above characteristics in patients with viral hepatitis C has not been carried out. In our opinion, this is important, since the protocols for patient management and treatment regimens are different. I would like to note that the literature provides reviews on this problem, which describe in detail epidemiological data and pathophysiological mechanisms of extrahepatic lesions in viral hepatitis.[17,31-33] However, there is little original research in this area. We will try to discuss and compare those isolated works that were found in the available literature.

Bagewadi S.B. et al. (2015) describe 3 clinical cases with a review of the literature, where, along with periodontal damage in the form of bleeding, swelling and friability of the gingival papillae, lichen planus was determined in 2 cases of hepatitis C.[34]

Hepatitis C virus is a sialotropic virus. HCV-infected patients may often have signs of Sjögren's syndrome such as sialadenitis with mild or even absent clinical symptoms. The role of HCV in the pathogenesis of Sjögren's syndrome is not fully understood. However, in 57% of cases of chronic liver diseases associated with HCV, histological changes in the salivary glands' characteristic of Sjögren's syndrome were detected.[35] We did not set such a task for ourselves.

Conclusion

Thus, during the clinical examination of patients with HCV, the average severity of periodontal damage predominated, a mild degree was not detected, and

there were not enough patients with a severe degree for reliable conclusions. Numerous morphological signs can be divided into those that are indicators of the severity and activity of inflammation, and those that are associated with a long-term chronic course of inflammation in the oral cavity.

Declarations

Conflict of interest and financial disclosure

The author declares that he has no conflict of interest and there was no external source of funding for the present study. None of the authors have any relevant financial relationship(s) with a commercial interest.

Ethical approval

Research protocol was approved by the local Ethical Committee (2018/23) and in accordance with those of the World Medical Association and the Helsinki Declaration.

Informed consent

Informed consent was obtained from all individual participants included in the study.

Source of Funding

Non funding.

Availability of Data and Materials

Not applicable.

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ԲԵՐԱՆԻ ԽՈՌՈՉԻ ԼՈՐՁԱԹԱՂԱՆԹԻ և ՊԱՐՕԴՈՆՏԻ ԿԼԻՆԻԿԱ-ՄՈՐՖՈԼՈԳԻԱԿԱՆ ԱԽՏԱՀԱՐՈՒՄՆԵՐԸ ՎԻՐՈՒՍԱՅԻՆ ՀԵՊԱՏԻՏ C-Ի ԴԵՊՔՈՒՄ

Վահե Ազատյան,[1] Լազար Եսայան,[2] Յուրի Ազբեկյան[3]

[1] Դոցենտ, Մ. Հերացու անվ. Երևանի Պետական Բժշկական Համալսարանի թերապևտիկ ստոմատոլոգիայի ամբիոն, Երևան, Հայաստան

[2] Պրոֆեսոր, Երևանի Մ. Հերացու անվան պետական բժշկական համալսարանի թերապևտիկ ստոմատոլոգիայի ամբիոնի վարիչ, Երևան, Հայաստան:

[3] Երևանի Մ. Հերացու անվան պետական բժշկական համալսարանի ստոմատոլոգիական ֆակուլտետի ուսանող, Երևան, Հայաստան

Ամփոփում

Ներածություն. Համակցված պաթոլոգիայի ուսումնասիրության նկատմամբ հետաքրքրությունը վերջերս բացատրվում է նոր փաստերի կուտակմամբ, ամբողջ օրգանիզմի համակարգում միջօրգանական, միջհյուսվածքային և միջբջջային փոխազդեցության մակարդակների մասին նոր տեղեկությունների ի հայտ գալով: Լյարդի քրոնիկ դիֆուզ հիվանդությունների դեպքում բերանի խոռոչի ուսումնասիրությունները մեծ հետաքրքրություն են ներկայացնում բժիշկների համար, քանի որ լյարդում զարգացող պաթոլոգիական պրոցեսները, որպես կանոն, հանգեցնում են բերանի լորձաթաղանթի օրգանակ և ֆունկցիոնալ խանգարումների:

Հետազոտության նպատակն է ուսումնասիրել բերանի խոռոչի լորձաթաղանթի և պարօդոնտի կլինիկա-մորֆոլոգիական փոփոխությունները վիրուսային հեպատիտ C-ի դեպքում:
Նյութը և մեթոդները. Հետազոտվել է 196 բուժառու, որից՝ հսկիչ խումբը կազմել է 100 բուժառու, որոնց մոտ առկա էր բերանի խոռոչի լորձաթաղանթի և պարօդոնտի ախտահարումներով առանց Վիրուսային հեպատիտ C-ի, ինչպես նաև հիմնական խմբի 96 բուժառու: Ուսումնասիրվել է ստոմատոլոգիական ստատուսը: Կատարվել է հյուսվածաբանական հետազոտություն:
Արդյունքները. HCV-ով բուժառուների խումբը ներառում էր 96 մարդ (63,5% տղամարդիկ), առանց HCV խմբում ներառված էր 100 մարդ (62,0% տղամարդիկ) բերանի լորձաթաղանթի և պարօդոնտի ախտահարումներով: Շրթունքների և բերանի լորձաթաղանթի վնասվածքները ավելի հաճախ են նկատվել HCV-ով բուժառուների մոտ, քան առանց HCV խմբում: էրոզիաներ (13,5%՝ 1%-ի դիմաց), բերանի անկյուններում ճաքեր (42,7%՝ 0%-ի դիմաց), բերանի լորձաթաղանթի մակերեսի փոփոխություններ (89,6%՝ 3,0%-ի դիմաց), արյունազեղումներ՝ (78,1%՝ 0%-ի դիմաց), և այլն:
Եզրակացություն. Այսպիսով, HCV-ով բուժառուների կլինիկական հետազոտության ընթացքում գերակշռում էր պարօդոնտի ախտահարման միջին ծանրությունը: Բազմաթիվ մորֆոլոգիական առանձնահատկությունները կարելի է բաժանել այն նշանների, որոնք հանդիսանում են բորբոքման ծանրության և ակտիվության ցուցանիշներ:

КЛИНИКО-МОРФОЛОГИЧЕСКИЕ ПОРАЖЕНИЯ СЛИЗИСТОЙ ОБОЛОЧКИ ПОЛОСТИ РТА И ПАРОДОНТА ПРИ ВИРУСНОМ ГЕПАТИТЕ С

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Резюме

Введение: Интерес к изучению сочетанной патологии в последнее время объясняется накоплением новых фактов, появлением новых сведений о межорганном, межтканном и межклеточном уровнях взаимодействия в системе целостного организма. Исследования полости рта при хронических диффузных заболеваниях печени представляют большой интерес для клиницистов, поскольку развивающиеся в печени патологические процессы, как правило, приводят к органическим и функциональным нарушениям в слизистой оболочке полости рта.
Целью: Исследования было изучение клинико-морфологических поражений слизистой оболочки полости рта и пародонта при вирусном гепатите С.
Материал и методы: Обследовано 196 пациентов, из них: контрольную группу составили 100 пациентов с поражением слизистой оболочки полости рта (СО) и заболеваниями пародонта, у которых не был диагностирован ВГС и 96 пациентов основной группы исследования. Изучен стоматологический статус. Было проведено гистологическое исследование.
Результаты: В группу больных ВГС вошли 96 человек (63,5% мужчин), в группу без ВГС - 100 человек (62,0% мужчин) с поражением слизистой оболочки полости рта. Поражения губ и слизистой оболочки полости рта чаще наблюдались у пациентов с ВГС, чем в группе без ВГС. эрозии (13,5% против 1%),

трещины в углах рта (42,7% против 0%), изменения поверхности слизистой оболочки полости рта (89,6% против 3,0%), кровоизлияния - (78,1% против 0%) и др.

Заключение: Таким образом, при клиническом обследовании больных ВГС преобладала средняя степень тяжести поражения пародонта. Многочисленные морфологические признаки можно разделить на признаки, которые являются показателями тяжести и активности воспаления.