Problematic issues of chronic gastritis studies

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The disease is old, and nothing changes in it, we change as
we learn to recognize that which was not previously
accessible to understanding.
J.N. Charcot (1825 — 1893) [12].

Definition. We consider chronic gastritis — CG (chronic gastritis) as a polyetiological and polypathogenetic disease of the stomach with a chronic, slowly progressive course, which is based on a specific inflammatory process with lymphoplasmacytic infiltration of its mucosa and neutrophilic component indicating its activity, and with the development of disregenerative, dis- and atrophic changes leading to its secretory insufficiency, manifested hypo-and achlorhydria and gastric achilia [15].

Brief history of the doctrine of CG. The doctrine of the CG has its origins in 1808, when the famous French physician F. Broussais — participant of the Napoleonic Wars — established presence of gross morphological changes in the gastric mucosa (GM) have died fighting the soldiers and officers of Napoleon's troops, who during his life complained of various gastric symptoms [29].

However, 30 years later it turned out that the morphological changes in the coolant detected by F. Broussé are the result of post-mortem self-digestion of the stomach tissue with active gastric juice. This was the reason that the diagnosis of chronic hepatitis (according to the figurative utterance of Y. Fishzon-Ryss [12]) acquired a ***"bad reputation"*** and disappeared from use for many decades. Instead of CG, since 1879., began to use the diagnosis of ***"nervous dyspepsia"*** (NervoseDispepsie), or ***"gastric neurosis,"*** regarding it as a functional pathological process that does not have a morphological substrate [36].

In 1928, G. E. Konjetzny made a new attempt to prove the presence of morphological changes in HCG — in the resected stomachs about ulcers and cancer, having developed a technique that prevents the possibility of post-mortem damage to the tissues of the stomach by gastric juice [35], but due to the methodological mistakes he made, his research was not perceived by the medical community.

Only in 1947, with the introduction of semi- rigid gastroscopes into clinical practice, which allowed to conduct an in vivo biopsy of various departments of the coolant, the diagnosis of chronic hepatitis, as a clinical morphological concept, was restored in its rights [40].

An important stage in the development of the doctrine of hCG was evidence of the presence of coolant in the antral endocrine cells that produce ***the hormone gastrin*** — a powerful physiological stimulant of acid in the stomach, made by the British physiologists R. A. Gregory and H. J. Tracy in 1963 g of. [32]. They established the chemical structure (formula) of gastrin and synthesized its analogue — pentagastrin, with the help of which they are now studying the secretory function of the stomach.

Prevalence of hCG is 15 — 30% in the general population and 80-85% of all diseases of the stomach [2, 12, 17, 21] — is the most common gastrointestinal diseases.

Given the relationship of certain forms (types) of chronic hepatitis with the development of peptic ulcer (PID) and gastric cancer (RJ), the problem of chronic hepatitis should be considered as extremely important and of great medical and social importance.

I. **Etiology**. We consider it reasonable to ***distinguish between causal and predisposing factors for the development of chronic hepatitis.*** The latter include the abuse of strong alcoholic beverages and smoking, systematic gross dietary errors, etc. They alone can't cause CG, but contribute to its development [2, 6, 17, 31, 44].

In 1983 g of. Australian scientists j. R. Warren and b. J. Marchall found in the stomach of patients with chronic hepatitis (and then in patients with PUD) a ***previously unknown bacterium, later named Helicobacter pylori (Hp)*** [43].

It was found that Hp — is a Gram-negative, spiral bacterium mikroaero- philous having at one end of the 4 — 5 flagella by which it is able to move quickly in supraepithelial mucus in search of the optimal conditions for the existence in the coolant. Hp is a non-invasive microbe, whose vital activity is limited exclusively to the gastric complex. Outside the stomach, HP can exist only ***in foci of gastric metaplasia*** (areas of impaired cellular renewal processes).

"Age" of Hp, according to the latest data, does not exceed 50 thousand years. In adverse conditions for their existence, the spiral forms of HP (helical — like) turn into coccoids (coccoid — like), which lose their reproductive ability, but provide them with stability in circumstances unusual for their habitat [4].

In the late stages of evolution, part of Hp acquired an "island of pathogenicity" (pathogenecity — associated island — PAI) located on the chromosomal DNA region. It is believed that its appearance is the result of a horizontal transfer of the "island" from some other microorganism [4, 11]. AT PAI focused genes cytotoxicity: cagA (cytotoxin-associated gene A), vacA (vacuolating-asso-ciated cytotoxin A), iceA (induced by contact with epithelium) and babA (blood group associatedbinding adhesion). The most important marker of cytotoxicity (pathogenicity) is recognized as the cag gene. A [45].

Hp infection is widespread: up to 60% of the world's population is infected with these bacteria. 50% of the population, and in developing countries in Africa, Asia and Latin America — more than 90%, in Russia — 70 — 90% [24, 26] For example, 35 in the developed countries of Europe and North America are infected with Hp. However, the clinical consequences of their vital activity in the form of various gastroduodenal diseases are found only in 1% of cases [4]. Up to 70% of people infected with Hp — a healthy bacillicarriers often — throughout life. [28]

Proponents of the leading role of Hp infection in the development of gastroduodenal diseases state that Hr has no competitors in the stomach — only Hp, thanks to their unique ability to recombinant mutations, they were able to adapt to the existence of high acidity and the enzymatic activity of bacterial juice. properties. If another bacterial microflora is found in the stomach, they declare it transient [4].

To check the validity of this statement, ***we studied the microbial landscape of the stomach in patients with chronic hepatitis C using modern microbiological research methods.***

A total of 71 patients with chronic hepatitis were examined in various age categories. Altogether, 105 different bacteria colonizing the coolant during chronic hepatitis were isolated from biological samples. A targeted biopsy in the antrum of the stomach was performed after the oral cavity was treated with an antiseptic. Using sterile forceps ha strofibroskopa 2 biopsy were taken from antrum and corpus, put them in 0.3 — 0.5 ml of buffered saline and immediately (within 15 min.) Delivered to the laboratory.

Primary seeding of the studied samples on nutrient media was carried out in accordance with regulatory documents [7, 8]. In order specific identification of microorganisms plated ii uc use standard culture media, «Lachema» firm test system express diagnostics, «Biomerieux». To confirm the biological comparability of the strains, their phenotypic (tinctorial, cultural, biochemical) characters were compared as additional methods [1, 34], phagolizability, sensitivity to antimicrobial drugs.

We found that in the antrum of the stomach with chronic hepatitis a different microflora is determined in 80.3% of cases, including in the form of bacterial associations — in 55.7%.

The predominant species of microflora in the antrum Well eludka at Hg proved to be Streptococcus spp. (52.5%) found at 4.4 Lg CFU/g, Staphylococcus spp. (23%) at a concentration of 2.2 Lg CFU/g, and fungi of the genusCandida (19.7%) at a concentration of 1.7 Lg CFU/g Hp were detected in 18% (3.3 Lg CFU/g). On average, the concentration of microbial cells in biopsy specimens of the antrum of the stomach in chronic hepatitis was 3.4 Lg CFU/g [18].

When studying the pathogenic properties of the isolated bacterial microflora, their urease activity was found in 27.3±6.0%, in 36.3±3.5% — the presence of pathogenic properties natural or acquired during adaptation to the aggressive environment of the stomach, and in 45, 5±3.7% — resistance to antibiotics. These data are confirmed both in our country [22] and abroad [27], and it is unacceptable to ignore them. The diverse bacterial mucosal microflora detected in the stomach has adhesiveness and in a large part of cases invasiveness (unlike Hp) and pathogenic properties and, most likely, can take part in the development of the infectious inflammatory process in the stomach (CG), along with Hp and without them.

Ii. **The classification of** any disease and, in particular, CG, it is periodically updated in connection with the achievements of science to clarify the characteristics of its etiology, pathogenesis, morphological changes in the affected organ, and clinical manifestations.

The present stage in the classification of hCG began in 1989, when several German scientists, united in the Working Group Society of Pathologists, have developed a new classification of chronic hepatitis, highlighting its 6 types: 1. autoimmune chronic hepatitis (type A); 2. bacterial chronic hepatitis (type B) associated with Hp infection; 3. mixed CG (type AB); 4. chemical and toxic CG (type C); 5. lymphocytic hCG; 6. special forms of chronic hepatitis (granulomatous, eosinophilic, Crone-gastritis and infectious gastritis, excluding Hp). At the same time, the authors of the classification suggested distinguishing the etiological and descriptive components in the diagnosis of chronic hepatitis, as well as its morphological characteristics [33, 41].

It is this classification was the basis adopted in August 1990 at the IX International to ongresse gastroenterologists in Av Strahl (Sydney), the so-called ***"Sydney Classification System" CG,*** which is based on 3 principles: etiological (pathogenetic), received the grammatical name "prefix", topographic ("root" or "core") and morphological ("Suf fix") [37].

CG activity is determined morphologically, according to the severity of the neutrophil component in the lymphoplasmacytic inflammatory infiltration of the coolant, which indicates the presence of a chronic inflammatory process. In addition, the presence and type of intestinal metaplasia in the coolant is noted [5].

It is also proposed a semi-quantitative assessment of the severity of coolant contamination Hp: mild, moderate, severe.

According to etiology (or pathogenesis), the following are distinguished in the classification: 1. autoimmune chronic hepatitis (its etiol is unknown); 2. Hp- associated CG; 3. idiopathic chronic hepatitis; 4. reflux gastritis of the operatedstomach; 5. specific forms of chronic hepatitis: granulomatous, including Crohn-gastritis, sarcoidosis and tuberculosis; eosinophilic and lymphocytic chronic hepatitis associated in cases with celiac disease (gluten enteropathy).

Atrophic CG in its development goes through a series of stages: non-atrophic antral CG, which eventually spreads in the anthrokardialnoy direction, capturing the fundus from the affairs of the stomach (CGH antrocardial expansion), and then for many years the atrophic process in the coolant gradually develops and progresses. affecting the fundic and antral sections of the coolant (total atrophic chronic hepatitis) and, finally, multifocal chronic hepatitis, preceding the development of gastric cancer (RJ). The atrophic process in the coolant system captures the parietal and main cells of the gastric glands and is accompanied by hypo- and achlorhydria, gastric achilia and hypergastrinemia.

In 1994 g of. We published an article criticizing certain provisions of the ***"Sydney Classification System"*** CG [14]. So, we found it expedient to restore the distinction between chronic hepatitis B and types A, B, and C, since they successfullyreflect the characteristics of their origin: type A is autoimmune, type B is bacterial; type C is chemical toxic (from the word chemical).

In chemical toxicity CG (type C), we recommended the inclusion of ***drug CG*** induced by the use of nonsteroidal anti-inflammatory drugs (NSAIDs).

The most important addition to the ***Sydney Classification System was the*** inclusion of two new sections:

one. ***According to functional criteria:*** 1. CG with preserved and increased secretion and 2. CG with secretory insufficiency (moderate, severe, total).

2 ***According to clinical features:*** 1. CG with pain syndrome (gastritis dolorosa); 2. CG with a dyspeptic syndrome and 3. CG of a latent (asymptomatic) course [14, 20].

We believe that the absence of a functional and clinical sections of the Sydney classification CG — is it a serious shortcoming, and ***the claim that HCG is always asymptomatic — erroneous,*** inconsistent with the clinical realities [2, 17, 21].

In 1996, the Houston version of the Sydney Classification of HG ***was published, which was*** compiled by a group of leading American gastroenterologists and morphologists, in which 3 sections were distinguished: 1. type of gastritis; 2. these are the environmental factors of CG; 3. Sino Nyma.

In the first section it is proposed to distinguish: 1. non-atrophic CG; 2. atrophic hGH; 3. special forms of CG: a) chemical; b) radiation; c) lymphocytic; g) granulomatous; e) infectious (excluding Hp). The etiological factors of non-atrophicCG include: Hp infection and others (?).

When autoimmune atrophic fundic CG, whose etiology is unknown, its autoimmune pathogenesis is indicated. The causes of chemical CG include: duodenal-gastric reflux (reflux gastritis), drugs (NSAIDs) and other chemical irritants. The radiological damage of the stomach serves as the etiology of radiation chronic hepatitis. Among the possible these factors of lymphocytic chronic hepatitis are indicated: immune disorders, Hp infection and gluten, since in 40% of cases this form (type) of HCG is combined with celiac disease (gluten enteropathy). The cause of granulomatous chronic hepatitis can be: Crohn's disease (Crohn-gastritis), sarcoidosis, Vegeran granulomatosis, foreign bodies in the stomach. In eosinophilic chronic hepatitis, food and other allergens are important, and in infectious chronic hepatitis, various bacteria (except Hp), viruses and pathogenic fungi are important.

The list of synonyms for various types of chronic hepatitis is indicated: 1. for non-atrophic chronic hepatitis — antral, superficial, diffuse, interstitial, ***hypersecretory, type B***; 2. in case of atrophic autoimmune chronic hepatitis — fundal, diffuse, associated with megablastic (B 12 -deficient, pernicious) anemia, ***type A;*** 3. with chemical CG — reactive, reflux gastritis, ***type C***, etc.

The Houston version of the CG classification is supplemented with a ***visual-analogue scale,*** which allows reducing the subjectivity of the assessment of morphological changes in various types of CG. It indicates the standards for semi-quantitative assessment of the histological pattern of the coolant: its lymphoplasmacytic and neutrophilic inflammatory infiltration, the degree (stage) of the atrophic process, the presence and severity of intestinal metaplasia of the coolant and its Hp contamination [30].

Thus, in the Houston version of the CG classification, ***almost all of the recommended additions to the Sydney Classification were included: 1. The*** CG division into types A, B and C was restored; 2. the composition of the chemical CG additionally includes medicinal CG, induced by prolonged intake of NSAIDs; 3. as one of the synonyms of non-atrophic antral CG, ***hypersecretory*** CG (its functional characteristic) was named [19].

In 2002 A group of international experts-morphologists for the study of the atrophic process has developed a new morphological classification of atrophic hCG, identifying two of its main types: 1. non-metaplastic; 2. metaplastic, in each of which 3 categories are established: 1. there is no atrophy; 2. indefinite (unconfirmed) atrophy; 3. atrophy confirmed.

In the case of metatastic atrophy, there is a partial or complete loss of the gastric glands, which are replaced by the intestinal epithelium (intestinal metaplasia) or (less commonly) by the pyloric epithelium. ***In case of non-metaplastic atrophy, the*** gastric glands are preserved, but the amount of glandular tissue is significantly reduced, the glands are rare and, as a rule, are not thin; fibrosis and fibromuscular proliferation of a proper coolant plate is observed.

Intestinal and pyloric metaplasia should be considered as an absolute sign of an atrophic process in the coolant.

According to the severity of the process, both types of atrophy are subdivided into 3 degrees: 1. insignificant (mild), when less than 30% of the gastric glands are lost; 2. moderate (30 — 60%); 3. heavy (more than 60%) [13, 38].

The appearance of intestinal metaplasia in the coolant is evidence of the transition of the gastric gland phenotype to the thin and thick cheek phenotype. At the same time, type I is enteric (complete) metaplasia, in which goblet cells producing sialomucins and Paneth cells appear in the stomach; type II is characterized by incomplete intestinal metaplasia characterized by the presence of a prismatic epithelium and goblet (gablet) cells secreting neutral or acidic sialomucins, and type III is a large-scale metaplasia secreting sulfamucins (Paneth cells are absent) [3, 13].

Finally, ***in 2008 In general, the same group of morphological experts presented a new system for assessing the atrophic process in the stomach during chronic hepatitis,*** which became known as the ***" OLGA system "*** (Operative Link forGastritis Assessment), the main purpose of which is the prevention of non-cardiac gastric cancer (RJ).

Implement it by obtaining 3 biopsy specimens from the antrum of the stomach and 2 of its fundus (body and bottom). In the future, the ***integral index is determined: the stage and degree of the atrophic process in the coolant.***

Stage atrophy in the coolant set using a ***new visual analogue scale.*** To do this, it is necessary to evaluate 10 correctly oriented gastric glands in each of the 5 biopsies obtained and to determine how many of them underwent atrophy. To install% atrophy, resulting number is multiplied by 10 and then divided by 3 (number of biopsies taken from the antrum) and 2 (by the number of biopsies from the stomach body) and thus define media Nij% atrophy. Thereafter% re lead in points: 1. if no Atro phy — ***"0 points";*** 2. with mild atrophy (less than 30% of the gastric glands lost) — ***"1 point"***; 3. at moderate atrophy (30 — 60% of atrophied glands) — ***"2 points";*** 4. for severe atrophy (more than 60% of atrophied glands) — ***"3 points".***

According to the " OLGA system ", the ***integral indicator of the morphological signs of atrophic chronic hepatitis*** and the severity of the inflammatory process in the coolant are the degree and stage of the atrophic process.

Assessing the degree of atrophic CG, determine the severity of lymphoplasmacytic inflammatory infiltration and its neutrophil component in the coolant, and the ***stage of atrophic CG is*** determined by the severity of the atrophic process in the coolant, which is divided into 4 degrees from 0 to 4 [39].

The advantages of the " OLGA system " are: 1. the ability to determine the stage of the atrophic process, which makes it possible to objectify the degree of risk of developing gastric cancer: the more pronounced the atrophic process and the larger the area of coolant damage, the higher the risk of non-cardiac gastric cancer; 2. with its help, when evaluating the results (effectiveness) of

remedial measures, it is possible to determine how much the degree of the inflammatory process and its activity have decreased after the course of treatment [3].

Iii. In the final part of the article, we found it justified to once again **discuss the problem of the ratio of the diagnosis of chronic gastritis (CG) with the syndrome of functional (gastroduodenal) dyspepsia — SFD (functional gastroduodenal disorders — FGD)** [16].

According to the ***"Rome criteria"*** (RK), the revision of which was published in 2006. (RC — III), SPD is a functional clinical syptomocomplex that does not have a morphological substrate, which is characterized by the appearance of epigastralgias and dispepsy phenomena induced by food intake and localized in the epigastric region closer to the midline [42].

The most important condition for the diagnosis of SFD is its distinction with any organic diseases that cause ***organic dyspepsia.*** When enumerating organic diseases of the upper digestive tract, excluding the diagnosis of SFD, which are accompanied by organic dyspepsia, the authors of the RK call: ulcer disease, gastric cancer, gastroesophageal reflux disease and its complications, chronic cholecystitis and chronic pancreatitis. It is noteworthy that for some reason, CG is absent in this list — the most frequent organic pathological process in a gastroenterological clinic. And this is not an accidental omission. Authors- compilers claim that HCG is ***always asymptomatic,*** and in the event of dyspeptic symptoms during chronic hepatitis, ***it is recommended to diagnose "chronic hepatitis with functional dyspepsia syndrome",*** combining the organic process (chronic hepatitis) with functional syndrome (SFD) in one diagnosis. At the same time, it is considered that chronic hepatitis is a purely morphological diagnosis that is not accompanied by clinical manifestations. ***Clinicians who study chronic hepatitis are well aware that this is not the case:*** in a large proportion of cases, chronic hepatitis occurs with pain syndrome (gastritis dolorosa) and with dyspeptic symptoms [2, 12, 17, 21, 23].

In addition, as is well known, there are no purely functional diseases in nature: they all have their own morphological substrate (equivalent) in the form of disruption of cell membranes, nuclear and cytoplasmic organelles, receptor apparatus, etc. [9]. The outstanding clinician and scientist V.Kh. Vasilenko clearly said this in his brilliant in form and content aphorism: ***"A function without a structure is unthinkable, and a structure without a function is meaningless"*** [10].

It is interesting to note that in the history of the doctrine of hCG has been length tion period (from 1879 to 1947, city of), when instead of a diagnosis of CG Paul call of a diagnosis of ***"nervous indigestion»*** (Nervose Dispepsie) [36].

It can be reasonably assumed that the concept of purely functional gastrointestinal disorders will soon be submitted to the historical medical archive, and ***instead of the diagnosis "SFD" the diagnosis "chronic gastritis" will again appear,*** which in a significant proportion of cases occurs with pain and dyspepsic phenomena.

Findings

1. Gastric microflora in chronic gastritis is represented by numerous types of bacteria (more often in the form of bacterial associations), and Helicobacter pylori, as a rule, is not the dominant microorganism colonizing the stomach, and the mucosal microflora found in the stomach has adhesiveness and (in most cases) invasiveness (difference from Helicobacter pylori) and pathogenic properties, including its urease activity.

2 In chronic gastritis in the stomach, not isolated helicobacteriosis is observed, but dysbacteriosis, which can cause the development of an infectious-inflammatory process in the coolant (CG), and the crucial role of Helicobacter pylori in its development causes reasonable doubts.

3 The classification of chronic gastritis in different historical periods has changed in connection with the establishment of new scientific data on its etiology, pathogenesis and the nature of the morphological changes in the coolant.

4. The syndrome of functional gastroduodenal dyspepsia (SFD), like any other disease, has its own morphological substrate, confirming the unity of structure and function.

5. It should be expected that soon the term " ***functional (gastroduodenal) dyspepsia syndrome"*** will disappear, as an independent diagnosis and will become one of the clinical manifestations of chronic gastritis (CG).

References:

1. Андреев В. А., Зачиняева А. В., Москалев А. В. Медицинская микология: руководство. Москва, 2008.
   [Andreyev B. A., Zachinyayeva A. V., Moskalev A. B. Meditsinskaya mikologiya: rukovodstvo. Moskva, 2008.]

2. Аруин Л. И., Григорьев П. Я., Исаков В. А., Яковенко Э. П. Хронический гастрит. Амстердам, 1993.
[Aruin L. I., Grigor'yev P. YA., Isakov V. A., Yakovenko E. P. Khronicheskiy gastrit. Amsterdam, 1993.]
3. Зак М. Ю. Классификация хронического гастрита: от Сиднейской системы к системе OLGA. *Сучасна гастроентерологія*. 2010. № 6 (56). С. 116–126.
[Zak M. YU. Klassifikatsiya khronicheskogo gastrita: ot Sidneyskoy sistemy k sisteme OLGA. *Suchasna gastroyenterologíya*. 2010. № 6 (56). S. 116–126.]
4. Исаков В. А., Домарадский И. В. Хеликобактериоз. Москва, 2003.
[Isakov B. A., Domaradskiy I. V. Khelikobakterioz. Moskva, 2003.]
5. Комптон К. К. (Compton C.C.) Гастрит: новое в патофизиологической классификации и диагностике. *Российск. журн. гастроэнтерол., гепатол. и колопроктол*. 1999. № 3. С. 24–30.
[Kompton K. K. (Compton S.S.) Gastrit: novoye v patofiziologicheskoy klassifikatsii i diagnostike. *Rossiysk. zhurn. gastroenterol., gepatol. i koloproktol*. 1999. № 3. S. 24–30.]
6. Маколкин В. И., Махов В. М. Алкоголь и желудок. *Клин. мед.* 1997. № 4. С. 14–18.
[Makolkin V. I., Makhov V. M. Alkogol' i zheludok. *Klin. med*. 1997. № 4. S. 14–18.]
7. Об унификации микробиологических (бактериологических) методов исследования, применяемых в клинико-диагностических лабораториях лечебно-профилактических учреждений. Приказ МЗ СССР от 22.04.1985, № 535.
[Ob unifikatsii mikrobiologicheskikh (bakteriologicheskikh) metodov issledovaniya, primenyayemykh v kliniko-diagnosticheskikh laboratoriyakh lechebno-profilakticheskikh uchrezhdeniy. Prikaz MZSSSR ot 22.04.1985, № 535.]
8. Протокол ведения больных. Дисбактериоз кишечника: отраслевой стандарт 91500.11.0004 — 2003 от 9.06.2003, № 231.
[Protokol vedeniya bol'nykh. Disbakterioz kishechnika: otraslevoy standart 91500.11.0004 — 2003 ot 9.06.2003, № 231.]
9. Саркисов Д. С. Следует, наконец, отказаться от понятий «функциональная болезнь», «функциональная патология». *Клин. мед.* 1998. № 3. С. 64–66.
[Sarkisov D. S. Sleduyet, nakonets, otkazat'sya ot ponyatiy «funktsional'naya bolezn'», «funktsional'naya patologiya». *Klin. med*. 1998. № 3. S. 64–66.]
10. Серов В. В. Общая патология — теория клинической медицины. *Клин. мед*. 1998. № 10. С. 4–10.
[Serov V. V. Obshchaya patologiya — teoriya klinicheskoy meditsiny. *Klin. med*. 1998. № 10. S. 4–10.]
11. Сидоренко С. В. Диагностика и лечение инфекций, вызванных Helicobacter pylori. *Инфекции в амбулаторной практике*. Москва, 2002. С. 125–140.
[Sidorenko S. V. Diagnostika i lecheniye infektsiy, vyzvannykh Helicobacter pylori. *Infektsii v ambulatornoy praktike*. Moskva, 2002. S. 125–140.]
12. Фишзон-Рысс Ю. И. Гастриты. Ленинград, 1974.
[Fishzon-Ryss YU. I. Gastrity. Leningrad, 1974.]
13. Хомерики С. Г. Новые подходы к морфологической классификации хронического гастрита. *Consilium medicum. Приложение: Гастроэнтерология*. 2008. № 1. С. 10–13.
[Khomeriki S. G. Novyye podkhody k morfologicheskoy klassifikatsii khronicheskogo gastrita. *Consilium medicum. Prilozheniye: Gastroenterologiya*. 2008. № 1. S. 10–13.]
14. Циммерман Я. С. Новая классификация хронического гастрита: принципы, достоинства, недостатки. *Клин. мед*. 1994. № 3. С. 58–60.
[Tsimmerman YA. S. Novaya klassifikatsiya khronicheskogo gastrita: printsipy, dostoinstva, nedostatki. *Klin. med*. 1994. № 3. S. 58–60.]
15. Циммерман Я. С. Проблема хронического гастрита. *Клин. мед*. 2008. № 5. С. 13–21.
[Tsimmerman YA. S. Problema khronicheskogo gastrita. *Klin. med*. 2008. № 5. S. 13–21.]
16. Циммерман Я. С. Синдром функциональной диспепсии и/или хронический гастрит? *Клин. мед.* 2013. № 3. С. 8–15.

[Tsimmerman YA. S. Sindrom funktsional'noy dispepsii i/ili khronicheskiy gastrit? *Klin. med*. 2013. № 3. S. 8–15.]

17. Циммерман Я. С. Хронический гастрит и язвенная болезнь. Пермь, 2000.
[Tsimmerman YA. S. Khronicheskiy gastrit i yazvennaya bolezn'. Perm', 2000.]
18. Циммерман Я. С., Захарова Ю. А., Ведерников В. Е. Сравнительная оценка диагностических тестов определения Helicobacter pylori и спектр мукозной микрофлоры желудка при гастрите и язвенной болезни. Клин. мед. 2013. № 4. С. 42–48.
[Tsimmerman YA. S., Zakharova YU. A., Vedernikov V. Ye. Sravnitel'naya otsenka diagnosticheskikh testov opredeleniya Helicobacter pylori i spektr mukoznoy mikroflory zheludka pri gastrite i yazvennoy bolezni. *Klin. med*. 2013. № 4. S. 42–48.]
19. Циммерман Я. С., Классификация хронических гастритов, разработанная в Хьюстоне, и ее соотношение с «Сиднейской системой». *Клин. мед*. 1998. № 5. С. 64–67.
[Tsimmerman YA. S., Klassifikatsiya khronicheskikh gastritov, razrabotannaya v KH'yustone, i yeye sootnosheniye s «Sidneyskoy sistemoy». *Klin. med*. 1998. № 5. S. 64–67.]
20. Циммерман Я. С., Циммерман И. Я. Классификация гастроэнтерологических заболеваний и клинических синдромов. 4-е расшир. и перераб. изд. Пермь, 2014. С. 19–25.
[Tsimmerman YA. S., Tsimmerman I. YA. Klassifikatsiya gastroenterologicheskikh zabolevaniy i klinicheskikh sindromov. 4-ye rasshir. i pererab. izd. Perm', 2014. S. 19–25.]
21. Чернин В. В. Хронический гастрит. Тверь, 2006.
[Chernin V. V. Khronicheskiy gastrit. Tver', 2006.]
22. Чернин В. В., Червинец В. М. Бондаренко В. М., Баллов С. Н. Язвенная болезнь, хронический гастрит и эзофагит в аспекте дисбактериоза эзофагогастродуоденальной зоны. Тверь, 2004.
[Chernin V. V., Chervinets V. M. Bondarenko V. M., Ballov S. N. YAzvennaya bolezn', khronicheskiy gastrit i ezofagit v aspekte disbakterioza ezofagogastroduodenal'noy zony. Tver', 2004.]
23. Шептулин А. А. Механизмы возникновения и современные принципы лечения диспепсических расстройств у больных хроническим гастритом. *Российский журн. гастроэнтерол., гепатол. и колопроктол*. 1999. № 4. С. 30–34.
[Sheptulin A. A. Mekhanizmy vozniknoveniya i sovremennyye printsipy lecheniya dispepsicheskikh rasstroystv u bol'nykh khronicheskim gastritom. *Rossiyskiy zhurn. gastroenterol., gepatol. i koloproktol*. 1999. № 4. S. 30–34.]
24. Щербаков П. Л. Эпидемиология инфекции Helicobacter pylori. *Российский журн. гастроэнтерол., гепатолог., и колопроктол.* 1999. № 2. С. 8–11.
[Shcherbakov P. L. Epidemiologiya infektsii Helicobacter pylori. *Rossiyskiy zhurn. gastroenterol., gepatolog., i koloproktol.* 1999. № 2. S. 8–11.]
25. Bailey S. Diagnostic microbiology. Mosby, Inc., 2014. 1438 p.
26. Blaser M. J. Ecology of Helicobacter pylori in the human stomach. *J. Clin. Invest.* 1997. Vol. 100, No 4. P. 759–762.
27. Blaser M. J. Falkow S. Исчезающая микробиота. *Клин. фармакол. и тер.* 2014. № 4. С. 7–16.
28. Blaser M. J. Helicobacter pylori and gastric disease. *Brit. Med. J.* 1998. Vol. 316. P. 1507–1510.
29. Broussais F. Histoire des phlegmasies out inflammations chroniques, fondee sur denouvelles observations de clinique et d'anatomie pathologique. Gabon; Paris, 1808.
30. Dixon M. F., Genta R., Yardley J. Classification and grading of gastritis. *Am. J. Surg. Pathol*. 1996. Vol. 20. P. 1161–1181.
31. Giacosa A., Cheli R. Smoke and chronic gastritis. *Mount. Sinai J. Med.* 1982. Vol. 49. P. 475–478.
32. Gregory R. A., Tracy H. J. The constitution and properties of two gastrin's extracted from hood antral mucosa. *J. Physiol*. 1963. Vol. 169. P. 18–19.
33. Heilmann K. L., Stolte M., Barchard T. Gastritis — Graduierung und Classification. *Patrol*. 1989. Vol. 10, No 3. P. 194–196.

34. Holt J., Krieg N., Senath P. Bergey's Manual of determinative bacteriology. 9th ed. Baltimore; Philadelphia; Hon Kong; London, 1997.
35. Konjetzny G. E. Die Entzundungen des Magens. *Henne — Lubarsch Handbuch spez. Path. Anatomie und Histologie*. Berlin: Springer–Verlag, 1928.
36. Laube W. O. Nervose Dispepsie. *Dtsch. Klin. Med.* 1879. Vol. 23. P. 98–104.
37. Misiewicz J. J., Tytgat G. N. Y., Goodwin C. S. The Sydney system: a new classification of gastritis. 9th Congress of Gastroenterology. *Working party reports*. Melburn : Blackwell, 1990. P. 1–10.
38. Rugge M., Correa P., Dixon M. F. Gastric mucosal atrophy: interobserver consistency using new criteria for classification and grading. *Aliment. Pharmacol. Ther*. 2002. Vol. 16. P. 1249–1259.
39. Rugge M., Correa P., Di Mario F. OLGA staging for gastritis a tutorial (Revew). *Dig. Liv. Dis.* 2008. Vol. 109, No 1. P. 650–658.
40. Schindler R. Gastritis. New York: Genne, 1947.
41. Stolte M., Heilmann K. L. Neie Classification und Graduierung der Gastritis. *Leber, Magen, Darm*. 1989. Vol. 19, No 5. P. 220–226.
42. Tack J., Talley N. J., Camilleri M. Functional gastroduodenal disorders. *Gastroenterology*. 2003. Vol. 130, No 5. P. 1466–1479.
43. Warren J. R., Marshall B. J. Unidentified curved bacilli on gastric epithelium in active chronic gastritis. *Lancet*. 1983. Vol. 1. P. 1273–1275.
44. Wolff G. Does alcohol cause chronic gastritis? *Scand. J. Gastroenterol.* 1997. Vol. 5, No 4. P. 289–291.
45. Yamaoka Y., Kadama T., Gutierrez O. Relationship between Helicobacter pylori: Ice A, cag A and vag A — status and clinical outcome: studies in four different countries. *J. Clin. Microbiol.* 1999; Vol. 37, No 7. P. 2274– 2279.

Problematic issues of chronic gastritis studies

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Key words: chronic gastritis, definition, history of studies, etiology, pathogenesis, diagnosis, treatment

The article defines chronic gastritis as a polyetiological and polypathogenetic stomach disease with a chronic, slowly progressing course, which is based on a specific inflammatory process with lymphoplasmocytic infiltration of its mucosa and neutrophilic component indicating its activity, and with development of disregenerative, dystrophic changes, leading to its secretory insufficiency, manifested hypo- and achlorhydria and gastric achilia.
The history of studying chronic gastritis from the beginning of the 19th century till present days is briefly described. It is proposed to distinguish between causal (Helicobacter pylori, etc.) and predisposing (alcohol, smoking, coarse food, etc.) factors in the development of chronic gastritis. The analysis of various classifications of gastritis is carried out: based on etiology, pathogenesis, functional features, clinic, endoscopic and histological characteristics. The Sydney, Houston classifications, the OLGA system are described. Particular attention is paid to diagnosis, biopsy technique of the gastric mucosa, ratio of diagnoses of chronic gastritis and functional dyspepsia, as well as the role of gastric microflora in development of gastritis. It is revealed that gastric microflora in chronic gastritis is represented by numerous types of bacteria (more often in the form of bacterial associations), moreover, Helicobacter pylori is not the dominant microorganism colonizing the stomach, and the mucosal microflora found in the stomach has adhesiveness, invasiveness and pathogenic properties, including its urease activity.