Clinical aspects of nonspecific ulcerative colitis in combination with viral hepatitis C

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The paper presents data of original investigations made at the proctology department of Kirovograd regional hospital in 2011-2012. The study is based on the comparative analysis of viral hepatitis C incidence in the patients with nonspecific ulcerative colitis (NUC) (basic group) and purulent lesions of perianal area (reference group). Subjected to the analysis were also peculiarities of NUC course in the patients of the basic group. On the basis of the data obtained, viral hepatitis C may be assumed to be one of the triggers in NUC development, and presence of the viral hepatitis in patients aggravates the clinical picture of NUC.

Keywords: nonspecific ulcerative colitis; viral hepatitis C; purulent lesions of perianal area

Introduction

The nonspecific ulcerative colitis (NUC) is a chronic recidivist disease of large intestine which is characterized by heavy diffusive ulcerative-inflammatory affection of its mucous membrane (Karnaukhov V.K., 1973, Komarov F.I. et al., 2008).

The peak age of NUC manifestation falls on the second and the third decade of life but the disease may be diagnosed at any age: from infantile to senile. NUC, known for its progressing course and causing a number of complications, presents a big social problem because this pathology results in impairment of a habitual mode of life and early disability (Levitan M.H. et al., 1980; Vorobyov G.I., Halif I.L. (editing), 2008).

The NUC development is influenced by infection-, immunology-, genetic- and environment-relevant factors (Yudin I.Y., 1968; Rivkin V.L. et al., 2004). The investigations continue on the role of human micro biome and viral infections in pathogenesis of this disease. Up to now no conclusive evidence was given that the infection agents are a causal factor of NUC occurrence. An important step in the study of NUC viral etiology problem and the role of viral hepatitis C (VHC) in particular, was the evidence of existence of VHC infection extra-hepatic manifestations (Abasov I.T. et al., 1985). Such interest in VHC is attributed to the ability of its agent to persist in human organism for decades causing a multitude of clinical forms and course versions of the disease: from symptom-free and latent to fast-progressing and fatal (Rasmussen H.H. et al., 1997, Ignatova T.M. et al., 2001). Under discussion now is the VHC infection role in etiology of a number of systemic connective tissue diseases which are today regarded as a pathology having nothing to do with infection diseases (Aprosin a Z.G., 1981; Mayer K.P., 1999). Big importance is attached to genetic factors. Psychological factors (psycho-emotional stress) may also play a certain role in the development of NUC aggravation but their significance for NUC occurrence is not demonstrated (Fedorov V.D., Dultsev Y.V., 1984).

Assumptions were set forward that NUC is an autoimmunity disease (Banks B.M. et al., 1957). Many scientists gave confirmations of this theory. At present big interest has arisen in clarification of cytokine and immune-regulatory molecule role in regulation of immunity response in NUC patients. Some scientists believe that the main link in NUC development is energetic insufficiency in intestinal epithelium. Changes in glycoprotein composition in NUC patients possibly serve as a confirmation of such a theory. The intestinal inflammation modeling in the experiment on animals contributed to deeper understanding of NUC pathogenesis, in particular that of the role of inflammation mediators and cytokines, significance of familial factors, effect of intestinal flora (Yukhvidova Z.M., Levitan M.H., 1969; Grebenev A.L., Myagkova L.P., 1994).

We registered increase in the incidence frequency of VHC in NUC patients which gave rise to this study.

Object and methods of investigation

The investigation is based on the comparative analysis of incidence of VHC markers (antibodies to HCV) in patients with NUC and purulent lesions of perianal area who were under in-patient treatment at the proctology department of Kirovograd regional hospital in 2011-2012, and also the features of NUC clinical course in VHC patients. All the participants of the investigation were divided into two groups: the 1st (basic group) included 61 NUC patients, and the 2nd (reference group) – 174 patients with purulent lesions of perianal area. All the patients were examined for presence of antibodies to HCV.

Results and discussion

During analysis of VHC incidence markers it was established that VHC incidence in the 1st (basic) group was 29.51%, while in the 2nd (reference) group it was 6.90% (Table 1).

It means that VHC incidence in NUC patients is 4 times higher than in the patients with purulent lesions of perianal area (p<0.001).

During analysis of NUC course peculiarities in the patients of the basic group it was established that the NUC clinical picture in the patients with VHC has some special features (Table 2).

According to the data obtained, in the patients with VHC the clinical picture of NUC features subtotal affection of large intestine, the treatment requires hormone administration, remission periods are shorter than in the reference group which is proved by higher frequency of repeated hospitalization.
Conclusions

When analyzing the data obtained, one may assume that VHC is one of the triggers in NUC development.

Presence of VHC in patients aggravates the clinical picture of NUC.

Further study of immunology aspects of this problem may contribute to development of new NUC prevention and treatment methods.

<p>| Table 1 VHC incidence in patients with NUC and purulent lesions of perianal area |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|</p>
<table>
<thead>
<tr>
<th>VHC incidence</th>
<th>1st group (n=61)</th>
<th>2nd group (n=174)</th>
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<tbody>
<tr>
<td>Number of patients with VHC, n</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>Share of patients with VHC, %</td>
<td>29.51</td>
<td>6.90</td>
</tr>
</tbody>
</table>

| Table 2 NUC Clinical picture distribution among the patients of the basic group |
|----------------------------------|----------------------------------|
| NUC clinical picture             | NUC+VHC n (%) | NUC without VHC n (%) | p        |
| Grave stage (n=18)               | 8 (44.4)      | 10 (55.6)            | >0.05    |
| Medium stage (n=22)              | 10 (45.5)     | 12 (54.5)            | >0.05    |
| Subtotal affection (n=18)        | 18 (100)      | 0 (0)                | -        |
| Hormone-dependence (n=18)        | 16 (88.9)     | 2 (11.1)             | <0.001   |
| Repeated hospitalization after 3 to 6 months (n=18) | 15 (83.3) | 3 (16.7) | <0.01 |

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Summary. The paper presents the data of own study based on proctology department of Kirovohrad Regional Hospital in 2011–2012. The basis of this study is a comparative analysis of the incidence of hepatitis C in patients with ulcerative colitis (UC) (study group) and purulent lesions of the perianal area (control group). The clinical characteristics of UC in patients of the study group were also analyzed. Analyzing the data, we can suggest that hepatitis C virus is one of the trigger factors of UC and hepatitis C clinically burden the course of UC.

Key words: ulcerative colitis, hepatitis C, purulent lesions of the perianal area.

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