Adherence to Medicine Therapy in Patients with Chronic Heart Failure

Introduction. Adherence to medical prescriptions is one of the most important components of treatment and prophylaxis programs in the older age group. In recent years, it has been considered as an independent risk factor for the progression of chronic heart failure (CHF) [1,2]. A group of elderly and senile patients is one of the most difficult in terms of non-adherence to treatment, which occurs in more than half of patients with CHF [3,4]. In old age, a number of diseases contribute to the development of CHF, while CHF itself is also the cause of many diseases and their complications, which leads to redundancy of medical prescriptions [5]. Unreasonable concomitant administration of many drugs increases the risk of unwanted drug interactions [6]. Currently, the data on the contribution of socio-economic factors to treatment adherence are mixed. However, it has been shown that low levels of education and wages, lack of work and social support, unstable housing conditions, remoteness from a health care facility, and high cost of drugs contribute to reduced adherence to treatment [6,7].

In connection with the above, the aim of this study was to study the degree of adherence to treatment in patients with chronic heart failure.

Material and methods. The study was conducted at the clinical sites of the Department of Cardiology and Gerontology of the Center for Professional Development of Medical Workers from 2011 to 2013. 139 patients with verified data of clinical and instrumental analyzes diagnosed with CHF FC II and III were under observation. The criteria for diagnosing CHF were the symptoms of CHF, clinical signs and the results of instrumental research.

The average age of all 139 patients included in the study was 67.18 ± 10.69 years. During the study, all patients were divided into 3 subgroups: group 1 - middle-aged patients (n = 32), mean age 52.29 ± 4.24 years; group 2 - elderly patients (n = 69), mean age 66.91 ± 4.68 years; and group 3 - group of elderly patients (n = 38), mean age 79.81 ± 4.47 years.

The group of elderly patients included 69 women with 34 cases of CHF FC II and 35 cases of CHF FC III. The group of senile patients included 38 women with 19 cases of CHF FC II and 19 cases of CHF FC III. 32 middle-aged patients with CHF included FC II (n = 20) and III (n = 12). To assess patient...
adherence to therapy, the Morisky-Green test (4-item Morisky Medication Adherence Scale - MMAS-4) was used.

The test includes 4 questions presented in table 2.5. These questions determine whether patients skip medication when they feel good or unwell, whether the patient forgets to take medication, and how seriously he or she takes the timing of the medication. The patient is asked to give the answer to each question "yes" or "no", which are respectively estimated at 0 or 1 point. As a result, all points are summed up, patients who scored 4 points are considered adherent to therapy

**Results.** Analysis of adherence to treatment in patients showed that the proportion of adherents (4 points on the Morisky-Green scale) increased with an increase in the FC of CHF. In the middle-aged group, the proportion of adherent patients with FC 2 was 20%, while with FC 3 it was 41.6%. In the elderly group, the proportion of adherents to treatment with FC 2 was slightly higher - 26.4%, and with FC 3 it was almost equal in the middle group. In the group of elderly patients, there was a lower proportion of adherents in both FC II and FC III CHF

<table>
<thead>
<tr>
<th>FC II</th>
<th>FC III</th>
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<tbody>
<tr>
<td>20%</td>
<td>21.05%</td>
</tr>
<tr>
<td>26.40%</td>
<td>31.5*^</td>
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<tr>
<td>41.6*</td>
<td>42.8*</td>
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The proportion of patients adhering to treatment (4 points on the Morisky-Green scale) of patients in age groups

Note:* - differences compared to FC II are statistically significant; ^ - differences in comparison with the indicators of the middle age group are statistically significant;

A survey of patients showed that in the group of elderly patients with CHF, medications were more often skipped in case of unsatisfactory health after taking them - in 20.5% of cases with FC II and in 31.4% of cases with FC III, with good health after a certain the time of their administration - in 32.3% of cases with FC II and in 17.1% of cases with FC III, when patients forgot about taking medications - in 38.2% of cases with FC II and in 28.6% of cases with FC III. The hours of drug intake were neglected by 32.3% of respondents in FC II and 20% in patients with FC III

In the group of elderly patients with CHF, medication was more often skipped in cases of unsatisfactory health while taking them, n = 9 (23.6%), with a noticeable improvement in the general condition, n = 13 (34.2%), in cases where the patient forgot to take the medicine, n = 16 (42.1%), the hours of taking the drugs were neglected n = 9 (23.7%) It should be noted that in the group of elderly patients, most of the cases of violation of the drug regimen were observed in FC II.
In the group of middle-aged patients, drugs were more often missed in case of unsatisfactory health after taking them - in 33.3% of cases with FC II and in 16.3% of cases with FC III, if they felt well - in 38.8% of cases with For FC II and in 25% of cases for FC III, they forgot to take medications - in 44.4% of cases with FC II and in 41.6% of cases with FC III. 33.3% of respondents with FC II and 33.3% of patients with FC III were inattentive to the hours of drug intake.

Thus, the results of the study indicate that among middle-aged and elderly patients with CHF, an extremely low average rate of adherence to therapy is determined. At the same time, the level of adherence to treatment decreases, especially in old age.

In the group of elderly patients, there is a tendency for a relative increase in adherence as the patient's condition aggravates. Analysis of the respondents' answers shows that impaired cognitive status is the probable cause of reduced adherence in these age groups of patients, since memory problems were most often noted among the reasons for poor adherence. The adherences study showed that elderly patients with CHF have a very low level of adherence to therapy, which tends to further decrease with age. The results obtained indicate that this aspect of the management of patients with CHF in this age category requires a more attentive attitude from the attending physicians.

It should be noted that the patient's reluctance to take medications, unintentional forgetfulness, gaps in taking the drug, failure to visit a doctor at the appointed time and non-compliance with non-drug recommendations significantly worsen the prognosis of the disease. Often, self-interruption of therapy affects the patient's condition more significantly than his absence. This is especially true for such groups of drugs as beta-blockers, diuretics, anticoagulants, digoxin and others.

Recent clinical studies showed that continuous monitoring of patients with CHF, regardless of the conditions in which they are located (outpatient or in a specialized clinic), continuity between the hospital and prehospital stages with close cooperation of doctors of different specialties plays a decisive role in increasing adherence to treatment.

Conclusion: The study showed that elderly and senile patients with CHF have a low level of adherence to therapy, which tends to further decrease with age. The results obtained indicate that this aspect of the management of patients with CHF in this age group requires a more attentive attitude from the attending physicians.

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