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Research Article

ASSESSMENT OF QUALITY OF LIFE IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION AND ATRIAL FIBRILLATION

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ABSTRACT

We studied 124 patients with acute myocardial infarction (AMI) and atrial fibrillation (AF) who were treated in the intensive care unit of Samarkand regional branch of the Republican Specialised Scientific and Practical Medical Centre of Cardiology. To determine the quality of life of AMI and FP patients we developed a software product "Assessment of patients' quality of life and their compliance to treatment". The study revealed that out of 124 patients with AMI and FP 37 (29,8%) patients had unsatisfactory quality of life, 35 (28,2%) patients had satisfactory, 28 (22,5%) patients had good and 24 (19,35%) patients had excellent quality of life. The quality of life was much higher in patients without FP, i.e. 28 (33.3%) patients had excellent quality of life, 30 (35.7%) patients had good quality of life, 19 (22.6%) patients had satisfactory quality of life and 7 (8.3%) patients rated their condition as unsatisfactory. Thus, the results of our study showed that patients with AMI without FP had good QoL in contrast to patients with AMI+FP. This indicates that FP causes deterioration of QOL indicators in the form of increased severity of disease symptoms, restriction of physical activity, disorders in the psycho-emotional sphere. The condition of patients with AMI+FP is assessed as uncompliant, whereas patients with isolated AMI were less compliant. Occurrence of atrial fibrillation paroxysms may have been associated with the lack of compliance to the medications prescribed by the attending physician and reduced quality of life of patients.

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KEYWORDS

Atrial fibrillation, arrhythmia, acute myocardial infarction.

INTRODUCTION

Atrial fibrillation (AF), the most common arrhythmia leading to hospitalisation, has a significant impact on morbidity and mortality. Although FP itself is rarely life threatening, the distress caused by the onset of symptoms can be severe and lead to a significant reduction in quality of life (QoL). This can be attributed to several factors. Typical complaints associated with arrhythmias include palpitations, chest pain, dizziness and symptoms of heart failure. Underlying heart disease causes symptoms such as weakness, dizziness, and shortness of breath. In addition, the consequences of FP treatment, including side effects of medications, interventions and especially hospitalisations, negatively impact on CV [3,5,8,16,20].

The World Health Organisation defines health not only as the absence of disease and physical defects, but also as an aspect of well-being or quality of life. However, there is currently no universally accepted definition of quality of life in FP. The term is subjective and can be defined by one or many aspects including symptoms, functional status and patients' perceptions, experiences and expectations of health. Therefore, it is important to consider the individual contribution of all these factors when assessing quality of life and how much the perceived symptoms associated with FP affect quality of life [6,11,13,17].

Most studies to date have assessed health-related quality of life (HRQL) in patients with symptoms that are intolerant or refractory to antiarrhythmic therapy or in patients who have received ablation. Thus, the impact of FP on the daily life of less severe or asymptomatic patients is not well known or studied. Moreover, studies directly assessing quality of life in FVC have been hampered by small sample sizes and lack of control groups. Another factor interfering with the assessment of quality of life in patients with FP is the presence of concomitant cardiovascular disease. Cardiovascular disease may dominate a patient's health concerns rather than atrial arrhythmias. Therefore, it is important in clinical trials to separate the impact of FVC on patients with FP from the impact on patients with other cardiac diseases [1,3,5,21,22].

Current treatment of FP is aimed at reducing symptoms and preventing severe complications associated with FP. However, it is important that the management and treatment of FP takes into account not only symptoms but also individual patient factors such as psychological well-being. Patients with FP are known to experience psychological distress, which can manifest as anxiety and depression, potentially leading to increased mortality, morbidity and utilisation of healthcare resources. One-third of patients with FP who have no overt symptoms and are unaware of their condition report lower CV than their sinus rhythm peers. It is estimated that more than half of patients in selected populations have episodes of asymptomatic FP [2,6,14,23].

Evaluation of the benefits of therapeutic interventions for FP included exercise tolerance and rhythm duration after cardioversion as study endpoints. However, these endpoints correlate poorly with subjective assessment of patients' symptoms. Quality of life measures take into account subjective improvement in well-being as a result of pain, psychological, emotional

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and physical impairment, as well as the potential burden and side effects of therapeutic interventions that cause symptomatic improvement but result in worsening of well-being. As a result, quality of life is becoming an increasingly important criterion for clinical outcome in PD [15].

THE AIM OF THE STUDY

To assess the quality of life in patients with acute myocardial infarction and atrial fibrillation using modified questionnaires quality of life in patients with arrhythmias" developed by Libis R.A. and Morisky-Green.

MATERIALS AND METHODS OF RESEARCH

We studied 124 patients with acute myocardial infarction (AMI) and atrial fibrillation (AF), who were treated in the intensive care unit of Samarkand regional branch of the Republican Specialised Scientific and Practical Medical Centre of Cardiology. To determine the quality of life of AMI and FP patients we have developed a software product "Assessment of patients' quality of life and their compliance to treatment". The software product is developed both in Uzbek language, and in Russian and English languages, i.e. the language of this programme can be changed at the request of the doctor and the patient. To create this software product we modified the questionnaire "Quality of life of patients with arrhythmias" developed in 1998 by Libis R.A. and his co-authors, which included 25 questions with 4 answer options. Patients who scored 0-25 points had excellent QoL; 26-50 points - good QoL; 51-75 points - satisfactory QoL; 76-100 points - unsatisfactory QoL.

Also, to determine the compliance to treatment of patients with FP, a modified universal validated Morisky-Green test (Morisky D.E., Green L.W.,1986) was used, which included 7 questions. Each item in this scale is scored on a "Yes-No" basis. A "Yes" answer is given 0 points and a "No" answer is given 1 point. Patients scoring 6-7 points are considered compliant, 4-5 points less compliant and 2-3 points uncompliant to treatment.

RESULTS

The study revealed that out of 124 patients with AMI and FP, 37 (29.8%) patients had unsatisfactory quality of life, 35 (28.2%) patients had satisfactory, 28 (22.5%) patients had good and 24 (19.35%) patients had excellent quality of life (Fig. 1.). Whereas among patients without FP the quality of life was much higher, i.e. 28 (33.3%) patients had excellent quality of life, 30 (35.7%) patients had good quality of life, 19 (22.6%) patients had satisfactory quality of life and 7 (8.3%) patients rated their condition as unsatisfactory.

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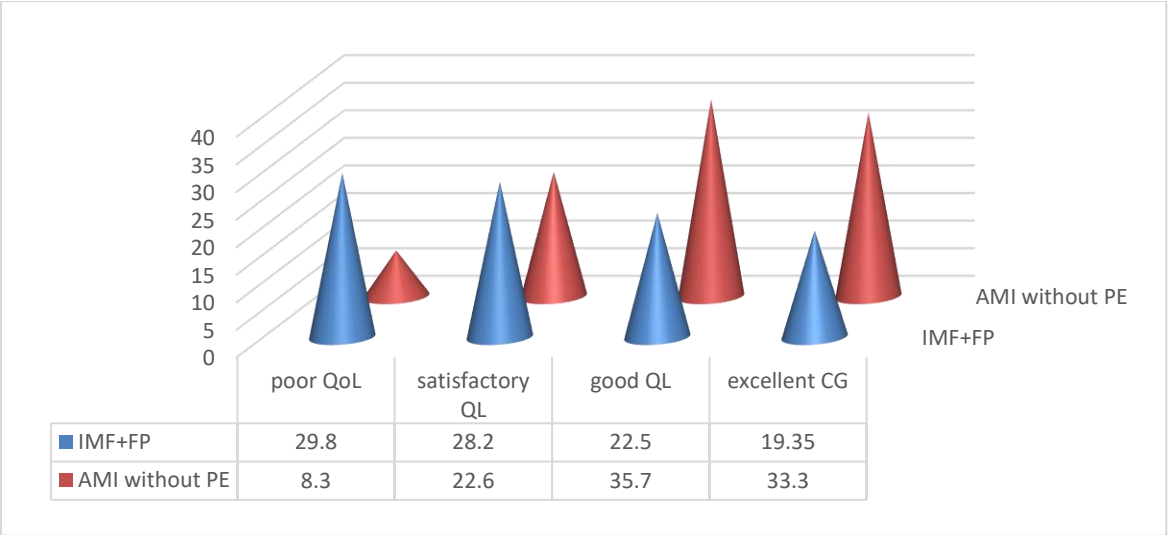

	poor QoL	satisfactory QL	good QL	excellent CG
IMF+FP	29.8	28.2	22.5	19.35
AMI without PE	8.3	22.6	35.7	33.3

Figure 1: Definition of EF among patients with AMI+FP and AMI without FP.

The highest score was given to such items as unpleasant sensations in the heart area (palpitations, heart palpitations), which were significantly more pronounced ($p<0.001$) among patients with FP and reached on average 2.38±0.5 and 2.69±0.6 respectively, i.e. on average exceeded the level of 2 points, which indicates significant severity of these symptoms (Figure 2.).

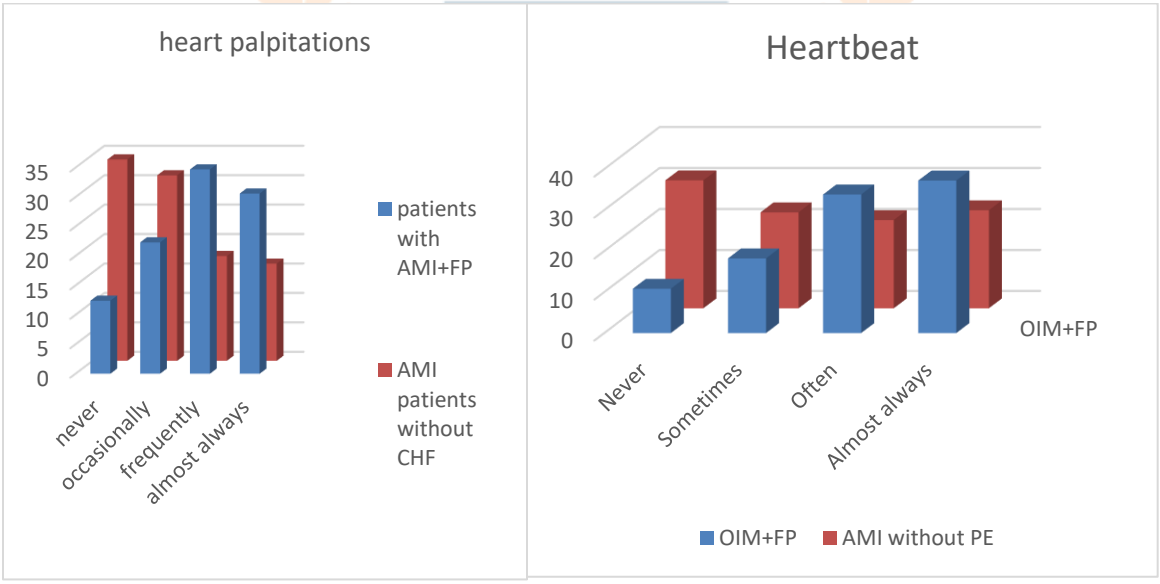

Figure 2: Frequency of heart palpitations and heart palpitations among patients with AMI+FP and AMI without FP.

When determining the QOL among patients with AMI+FP we managed to determine the violation of emotional state of the patient, it was determined by such indicators as mood reduction (54,8%), feeling of depression (36,3%), anxiety,

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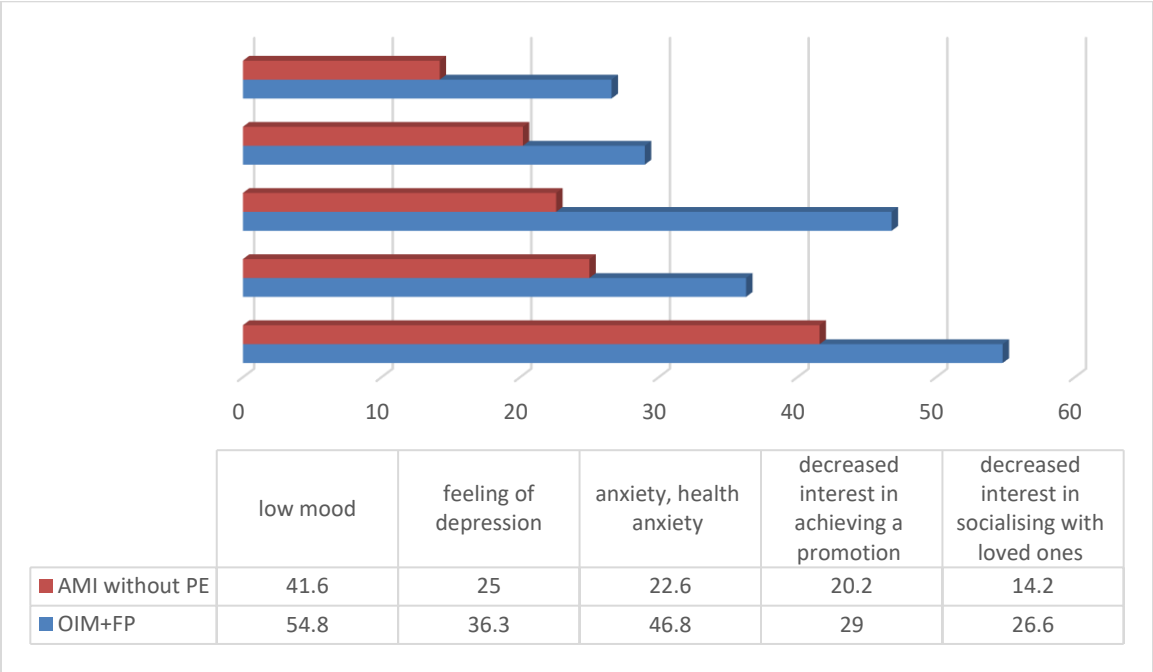
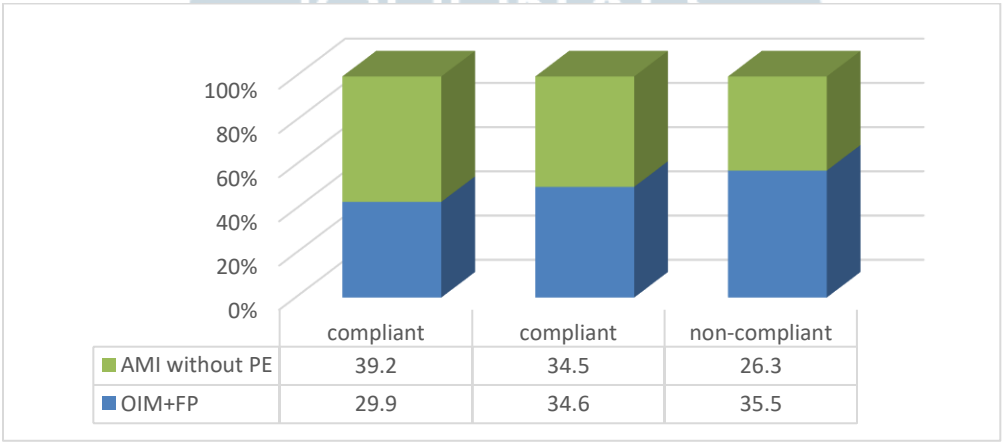
anxiety for his health (46,8%), decreased interest in achievement of promotion (29,0%), decreased interest in communication with relatives (26,6%). Such condition required counselling by a psychologist (Fig.3.). These indices were also overestimated among patients with isolated AMI.



	low mood	feeling of depression	anxiety, health anxiety	decreased interest in achieving a promotion	decreased interest in socialising with loved ones
AMI without PE	41.6	25	22.6	20.2	14.2
OIM+FP	54.8	36.3	46.8	29	26.6

Figure 3: Assessment of emotional state in patients with AMI+FP and AMI without FP.

To determine the compliance to treatment of patients with FP and AMI, we used a modified Morisky-Green questionnaire. In the course of this study we proved that among patients with AMI and FP compliance to treatment is significantly lower than in patients with isolated AMI (P≤0,01) (Fig 4.).



	compliant	compliant	non-compliant
AMI without PE	39.2	34.5	26.3
OIM+FP	29.9	34.6	35.5

Figure 4: Compliance to therapy among AMI patients with and without FP.

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There was a clear tendency to skip taking medication in the absence of its effect-34.6%, or to feel worse after taking medication-29.1%. Patients with FP were prone to forget to take pills-33.8%, and could not afford due to high cost of the drug-21.8%.

Table 1. shows the mean scores of patients with AMI+FP and AMI without FP according to the modified Morisky-Green scale.

Table 2.

Modified Morisky-Green questionnaire

№	Indicator	ОИМ+ФП	ОИМ без ФП	P-value
1	Have you ever forgotten to take your medicines?	0,61±0,12	0,19±0,038	≤0,01
2	Are you sometimes careless about the hours you take your medicines?	0,37±0,07	0,62±0,12	≤0,01
3	Do you skip taking your medicines when you feel well?	0,74±0,14	0,66±0,13	≤0,01
4	If you feel unwell after taking medicines, do you not skip the next time you take them?	0,88±0,15	0,51±0,1	≤0,01
5	Do you not skip taking a medicine if it is difficult for you to afford it?	0,64±0,12	0,12±0,024	≤0,01
6	Do you skip taking the medicine if you do not feel it has any effect?	0,17±0,034	0,28±0,056	≤0,01
7	Do you not change the frequency of taking the	0,23±0,046	0,4±0,08	≤0,01

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	drug prescribed by your doctor?			
	Sum of points	3,64±0,72	2,78±0,56	≤0,01

CONCLUSION

Thus, the results of our study showed that patients with AMI without FP had good QoL in contrast to patients with AMI+FP. This indicates that FP causes deterioration of the QoL indicators in the form of increased severity of the disease symptoms, physical activity limitation, disorders in the psycho-emotional sphere. The condition of patients with AMI+FP was assessed as uncompliant, whereas patients with isolated AMI were less compliant. Occurrence of atrial fibrillation paroxysms may have been associated with lack of compliance to medications prescribed by the attending physician and reduced quality of life of patients.

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