

THE QUALITY OF LIFE OF PATIENTS WITH A SICK SINUS SYNDROME DEPENDING ON THE PULSE BLOOD PRESSURE LEVEL ONE YEAR AFTER CARDIAC PACEMAKER IMPLANTATION

MUHTADI JABBAR ABDULZHR AL-MTER

V. N. KARAZIN KHARKIV NATIONAL UNIVERSITY

SCHOOL OF MEDICINE, KHARKIV, UKRAINE

**SCIENTIFIC SUPERVISOR: M.V. POCHYNSKA, CANDIDATE OF MEDICAL SCIENCES, ASSISTANT OF THE DEPARTMENT
OF INTERNAL MEDICINE**

INTRODUCTION

Sick sinus syndrome (SSS) is the most common arrhythmogenic disease that requires the implantation of an cardiac pacemaker (CP).

However, the relationship of comorbid conditions and quality of life (QoL) with the level of pulse blood pressure (PBP) in these patients has not yet been studied.

THE AIM OF THE STUDY

To evaluate the relationship of QoL and comorbid conditions of patients with SSS depending on the PBP level one year after of CP implantation and pharmaceutical therapy

RESEARCH VOLUME

- 40 patients (25 women and 15 men)
- age 70 ± 9 years
- annual stage of maintenance drug therapy after implantation of CP

INCLUSION AND EXCLUSION CRITERIA

INCLUSION CRITERIA:

- implantation of cardiac pacemaker in DDD(R) mode

EXCLUSION CRITERIA :

- age less than 40 years
- the presence of concomitant angina IV functional class (FC)
- chronic heart failure IV FC
- stimulation of the right ventricle and / or left ventricle less than 50% over the entire observation period.

SUPPORTING DRUG THERAPY

- Anticoagulants
- Antiplatelet agents
- Antiarrhythmic drugs
- Diuretics
- β - blockers
- Ca-channel blockers
- Angiotensin converting enzyme inhibitors
- Angiotensin II receptor blockers
- Statins

STUDY GROUPS

Group A

40-60 mm HG

Normal PBP

Group B

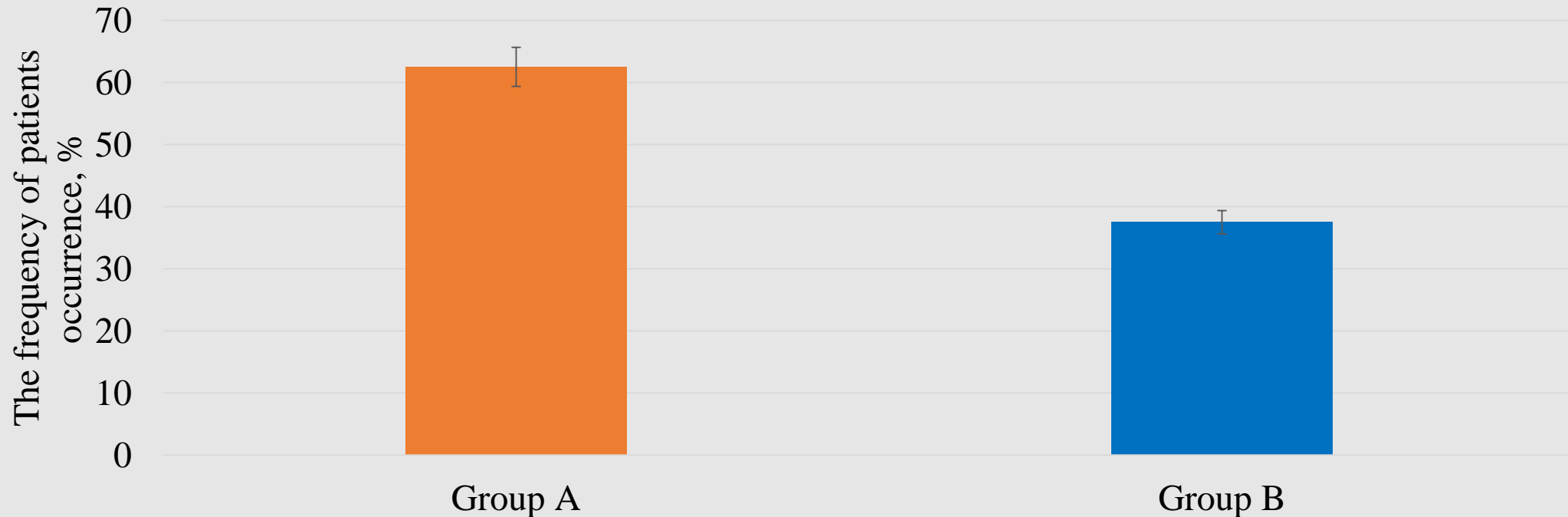
> 60 mm Hg

High PBP

STATISTICAL DATA PROCESSING

- Microsoft Excel data base
- Non-parametric indicators:
 - absolute - n, number
 - relative - p, %
- Mann-Whitney U-test
- Level of confidence $p < 0.05$

CONCENTRATION OF PATIENTS IN THE STUDY GROUP



Patients with implanted CP were mostly concentrated in the group with normal PBP (62.5%), less - in the group with high PBP (37.5%).

Clinical characteristics of patients with SSS and CP (% ± P)

| Clinical data | | | Group A | Group B |
|--------------------------------|--------------------------------|--------|-------------------|--------------------|
| Chronic ischemic heart disease | postinfarction cardiosclerosis | | 33±3 | 60±5* |
| | stable angina | I FC | 0 | 0 |
| | | II FC | 24±2 ^x | 26±2* |
| | | III FC | 12±3 | 40±4* ^x |
| Arterial hypertension | 1 degree | | 40±4 ^x | 0 |
| | 2 degree | | 28±3 | 67±4* ^x |
| | 3 degree | | 4±1 | 33±3* |
| Chronic heart failure | I FC | | 36±4 ^x | 20±2* |
| | II FC | | 16±2 | 87±6* ^x |
| Atrial fibrillation | persistent form | | 28±4 ^x | 33±4 ^x |
| | paroxysmal form | | 7±2 | 16±2* |

Note. *p <0,05 - between study groups, ^xp <0,05 – within subgroups.

INDICES OF PHYSICAL HEALTH COMPONENT IN PATIENTS WITH SSS AT DIFFERENT LEVELS OF PP ONE YEAR AFTER CP

| QoL parameters | Group A | Group B |
|---------------------------|--------------------|--------------------|
| Physical Functioning | 78±6 | 34±4* |
| Role-Physical Functioning | 56±4* ^x | 9,1±3 ^x |
| Bodily Pain | 74±5 | 41±4* |
| General Health | 66±5 | 28±4* |

Note. *p <0,05 - between study groups, ^xp <0,05 – within subgroups.

One year after the implantation of the CP, a decrease in the level of QoL was revealed, to a greater extent with high PBP. Indicators of role functioning due to physical condition were significantly reduced in both study groups.

INDICES OF PSYCHOLOGICAL COMPONENT OF HEALTH IN PATIENTS WITH SSS AT DIFFERENT LEVELS OF PP ONE YEAR AFTER CP

| QoL parameters | Group A | Group B |
|---------------------------|-------------------|--------------------|
| Vitality | 65±5 ^x | 25±4* ^x |
| Social Functioning | 82±6 | 47±4* |
| Role-Emotional | 80±5 | 28±4* ^x |
| Mental Health | 77±5 | 38±4* |

Note. *p <0,05 - between study groups, ^xp <0,05 – within subgroups.

In the study of the psychological component of health, the impairment of patients QoL was to a greater extent associated with a decrease in vital activity indicators within both of the studied groups, and indicators of role functioning due to emotional state — within group B.

CONCLUSION

- In patients with implanted cardiac pacemaker for sick sinus syndrome, normal PBP is most often found (62.5%), less common is high PBP (37.5%).
- One year after implantation, sick sinus syndrome is associated with chronic ischemic heart disease, arterial hypertension, chronic heart failure, and atrial fibrillation, with their incidence and severity increasing with the level of PBP.
- After pacemaker implantation in patients with sick sinus syndrome occurs decline in physical and psychological health components to a greater extent at a high level of PBP.
- After cardiac pacemaker implantation in patients with sick sinus syndrome, correction of drug therapy is required to normalize PBP, improve the clinical condition and increase their quality of life .