# Features of musical perception in patients with essential hypertension soft form

S.V. Shusharjan, O.V. Pushkin
(Moscow, Russia)

Hypertension (HD) is one of the most common diseases of the cardiovascular system (Mendelevich V.D., Solovyova V.S., 2002; Gubachev Yu.M., Dornichev V.M., Kovalev O.A., 1993) and is the main risk factor for the development of coronary heart disease and cerebral stroke (Organov R.G., 2000; Britov A.N., 2003).

Methods of music therapy, including musical psychocorrection, are beginning to occupy a special place in the technologies of restorative medicine. In accordance with the classification, the methods of music therapy are divided into active, those in which the patient takes an active part in the treatment process (for example, sings special exercises or plays an available musical instrument) and receptive, in which the patient's passive behavior during the session is provided (for example, listening music in a relaxed, comfortable position) (Razumov A.N., Shusharjan S.V., 2003). The effectiveness of using music therapy methods in the treatment of cardiovascular diseases and

functional disorders of the psychoemotional sphere has been shown in a number of studies (Mogendovich M.R., 1966; Polyakova V.B., 1968; Grineva I.M., 1981; Fudin N.A., 1996; Shushardzhan S.V., 1993, 1998, 2005).
The features of musical perception and psycho-physiological reactions to acoustic influences of various nature in patients with mild hypertension have not been studied earlier and are extremely important for the creation of highly effective acoustic programs of therapeutic influence.

It was shown that the effect of the influence of music on a personality depends on a number of factors, including individual musicality, the degree of musical training and the adequacy of perception. The higher the musicality of the individual, the higher the effectiveness of MT. Hence, it becomes necessary to diagnose and analyze these personality parameters (Shusharjan, 1993, 1998, 2005, etc.).

For the study, 125 patients with mild hypertension of different sex and age, who received standard medical treatment, were selected from the group of inpatients.

All 125 patients were examined for the level of musicality, musical preferences and the adequacy of musical perception.

The testing procedure was carried out in three stages.

1st stage - diagnostics of musicality.

The subject was asked to sing in a voice in turn:

1) two - three separate sounds, which were taken on the synthesizer, for example: "before", "Mi", "f sharp" ";

2) repeat the given rhythmic pattern by clapping your hands or percussion;

3) a fragment of any familiar melody, for example, "Evening bells ...", "I walk in Moscow ", etc.

The offered tests are elementary from a professional point of view. Therefore, musical persons without much effort carry out all the assigned tasks. There may be musical personalities with some imperfections
intonation hearing or sense of rhythm.

Finally, there are cases of complete absence of musical ear, then the subject

unable to cope with tasks.

2nd stage - basic interview.

After testing for musicality, the questionnaire part of a special card that was developed for this research work was filled out.

CARD No. ____

Date of the application _____
Full name of the subject _____
Age (full years) _____ Gender (M) (W)
Education (including music) _____ Main diagnosis _____ Musicality (according to the survey) _____
Musical preferences:
genre _____
(opera, symphony, jazz, light music, folk, etc.)
musical instruments _____
the nature of the music _____
funny, sad, slow, fast,
loud, quiet
Musical negatives: _____

For the correct choice of the program of musical therapeutic influence, it is necessary to determine the preferences of a particular person, including musical genres, instruments, etc. After processing the personal data, we summarized individual musical preferences for all surveyed groups.

3rd stage - diagnostics of the adequacy of perception.

After assessing the degree of musicality and musical education of the subject, we proceeded to determine the adequacy of perception. For this purpose, it was consistently offered to listen to 7 pieces of music of different nature, recorded on a test CD - disc developed by us. Each of the examined patients was given a special form (Table 1).

Table 1

Test form for the adequacy of musical perception.
Underline the selected characteristics of your assessment of each listener a piece of music in the corresponding lines

| No. of Work | Rate estimation | Character assessment music | Overall assessment |
|---|---|---|---|
| # 1<br>Albioni "Adagio" | Quick<br>Average<br>Slow | Sad<br>Anxious<br>Calm<br>Cheerful | Like<br>Neutral<br>I do not like |
| # 2<br>Bach-Gounod "Ave Maria" | Quick<br>Medium<br>Slow | Sad<br>Anxious<br>Calm<br>Cheerful | Like<br>Neutral<br>I do not like |
| No. 3<br>A. Bilk "My Heart Is in San Francisco" | Quick<br>Average<br>Slow | Sad<br>Anxious<br>Calm<br>Cheerful | Like<br>Neutral<br>I do not like |
| No. 4<br>D.Verdi "Rigoletto" Medium<br>duo Rigoletto and Gilda | Quick<br>Slow | Sad<br>Anxious<br>Calm<br>Cheerful | Like<br>Neutral<br>I do not like |
| No. 5<br>A. Khachaturyan<br>"Dance with sabers" | Quick<br>Average<br>Slow | Sad<br>Anxious<br>Calm<br>Cheerful | Like<br>Neutral<br>I do not like |
| # 6<br>Delibes "Sylvia" | Quick<br>Average<br>Slow | Sad<br>Anxious<br>Calm<br>Cheerful | Like<br>Neutral<br>I do not like |

Brief objective musicological characteristics the proposed compositions are shown below.

Piece number 1 - music is slow, sad, mournful.

Piece number 2 - music is slow, smooth, sublime, light in mood.

Piece No. 3 is a slow, romantic, serene composition. Piece No. 4 - music is moderately fast, disturbing, with dramatic moods.

Piece No. 5 - music is fast-paced, aggressive, warlike. Piece No. 6 - the music is moderately fast, playful, optimistic; Composition No. 7 is fast, perky, sparkling music.

After each piece of music, the subjects were asked to determine the tempo, the nature of the music and give a personal assessment of what they heard, emphasizing the corresponding characteristic in the form.

As a result of processing the obtained data, the subjects were divided into three categories: 1 type - musical - adequate; Type 2 - musical - inadequate; Type 3 - non-musical, inadequate.

It has been shown that patients who are musical in nature, but who perceive music inadequately, should be treated especially carefully (Shusharjan et al.). This phenomenon can occur in persons suffering from psychopathies, neurotic disorders. Then the music therapy program should be selected taking into account the condition of a particular patient or a group of patients.

Sometimes inadequate musical perception meets at professional musicians, which is to some extent explained by the satiety

music, professional fatigue. In such cases, music therapy may have relative contraindications.

Musicality

The data of examination of patients for musicality and adequacy of perception are presented in Table 2.

table 2

Indicators of general musicality and the adequacy of music perception in patients GB soft

| Index | Number of persons | % |
|---|---|---|
| High musicality | 32 | 25.6% |
| Average musicality | 54 | 43.2% |
| Low musicality | twenty | sixteen % |
| Lack of musicality | nineteen | 15.2% |
| Adequate perception | 104 | 83.2% |
| Inadequate perception | 21 | 16.8% |

Surveys have shown that in 84.8% of the experimental group of patients with mild hypertension, different musicality was revealed, which is generally slightly higher than the average indicators of musicality of the population as a whole, which, according to various authors, range from 60 to 70%. At the same time, the overwhelming majority of the surveyed differed in the adequacy of musical perception (83.2%).

Musical preferences.

The study of musical preferences in patients with hypertension was dictated not only by the interest associated with the lack of such data in the scientific literature, but also had practical significance for the formation of the most effective programs musically therapeutic impact. Data of this stage research programs are reflected in tables 3 and 4.

Table 3

Musical instruments, pre read by patients with hypertension (according to the survey)

| Musical instrument | Number of elections | % |
|---|---|---|
| accordion | 35 | 28% |
| violin | thirty | 24% |
| guitar | 27 | 21.6% |
| piano | fifteen | 12% |
| saxophone | 7 | 5.6% |
| clarinet | 3 | 2.4% |
| Difficult with the choice | eight | 6.4% |

Table 4

Musical characteristics designated as preferred by patients with hypertension (according to the survey)

| Musical characteristic | Number of elections | % |
|---|---|---|
| Mood | | |
| Optimism | 51 | 40.8% |
| Romantic | 32 | 25.6% |
| Serene | 23 | 18.4% |
| Sad | eleven | 8.8% |
| The pace of execution | | |
| Slow | 59 | 47.2% |
| Average | 43 | 34.4% |
| Quick | fifteen | 12% |
| Volume | - | - |
| Average | 93 | 74.4% |
| Quiet | 18 | 14.4% |
| Loud | 6 | 4.8% |
| Musical genre | | |
| "Light", pop music Classics | 62 | |
| | thirty | |
| People's | 21 | |
| Rock | 4 | |
| "Pops" | 0 | |
| Found it difficult to answer | eight | 6.4% |

According to the survey, it was found that among the most preferred musical instruments, patients with hypertension attributed: accordion - in 28%, violin - in 24% and guitar - in 21.6% of cases. At the same time, 40.8% of patients preferred to listen to music of an optimistic nature, 25.6% - romantic and 18.4% of a serene mood. Only 8.8% would like to listen to sad music.

At the same time, the dominant number of patients (81.6%) preferred the slow (47.2%) and medium (34.4%) tempo of music performance.

Describing their attitude to the playback volume of the melodies being listened to, 88.8% of patients with mild GBs completely denied loud music, preferring medium (74.4%) and quiet (14.4%) sound levels.

Genre preferences were determined in favor of "light", classical and folk music. The so-called "pop music" caused absolute denial.

Conclusions:

1. 84.8% of the experimental group of patients with mild hypertension had different musicality was revealed, which in general is slightly higher than the average indicators of musicality of the population as a whole, which, according to various authors, range from 60 to 70%.

2. The acoustic formula, which is positive in the perception of patients with hypertension, looks like as follows: music is preferred, "light", classical or folk by genre, mainly of an optimistic or romantic nature, medium or slow tempo, medium volume level, and accordion, violin or guitar are assigned to the priority musical instruments.