RETROSPECTIVE ANALYSIS OF CHRONIC RHEUMATIC CARDIAC DISEASES AND ITS COMPLICATIONS IN THE SOUTH KAZAKHSTAN REGION

Associate Professor of Medical Sciences: Baizhanova K. T.

Intern – therapists:
Mutalova M. A.,
Turgynbayeva L. I.,
Issabekova M. D.,
Myrzakhairova A. O.,
Kapar N.

Kazakhstan, Shymkent.
Ahmet Yesevi named International Kazakh – Turkish University.

Abstract. *Approximately 60% of literatures, which have published about rheumatic diseases in recent years, devoted to chronic rheumatic cardiac diseases /1,2/. Everyone knows that the chronic rheumatic cardiac diseases and complications appearing from these diseases have a direct impact on the development of cardiovascular diseases, early disability of patients, reduction in life expectancy of patients / 3.4 /.*

Due to this situation, chronic rheumatic cardiac diseases (CRCD) and complications appearing from these diseases are the topic of the day not only for society but also for the everyday work of qualified doctors / 1,3 /. Very important early detection of affections and complications developing from the chronic rheumatic cardiac diseases in order to improve the quality of these patients' life and use of prophylactic measures can help us to save not only social, but also the state budget / 5,6 /.

Therefore, at the moment a study of CRCD and its complications has become the topic of the day. In problem solution help not only modern clinical, laboratory and tooling researches but also the retrospective analysis of patient's medical history.

Objective. For the moment defining the affections and various complications prevalence developed as a result of chronic rheumatic cardiac diseases among the population of the South Kazakhstan region by a retrospective analysis.

Materials and methods

273 medical history of patients who treated with the "chronic rheumatic cardiac diseases" in 2006 at the rheumatic department of the South Kazakhstan Regional Hospital were analyzed in this work. 148 of these patients were women, 125 of them were men. The average age of women were 46.46 + -12.68 and men were 44,97- + 11.47.

According to the medical histories of these patients there were not any opportunities to determine the duration of chronic rheumatic cardiac disease.

Led the following laboratory assessments: complete blood analysis (Hb level, red blood cells and white blood cells, the rate of sedimentation of red blood cells), clinical urine analysis, biochemical analysis (overall level of protein, BUN, creatine, glucose, bilirubin, C-reactive protein), rheumatic analysis (Jokinen's reaction, thymol test) and tooling analysis: electrocardiography (ECG), Doppler echo electrocardiography (echocardiography), chest x-ray.

Cardiac affections revealed during the Doppler echocardiography were divided into three groups and considered separately: I group - affection, II group combined affections (instaneous emergence of constriction and insufficiency), III group - combined affection (affections of bicuspid and aortic valves, or bicuspid and tricuspid valves, or bicuspid, aortic and tricuspid valves).

Explanation is given in the article.

During the analysis of complications developed from CRCD according to age peculiarities patients were divided into three groups: group A - patients under 40 years, group B –40-60 years old patients and group C - people who are over 60. There were 87 (31.9 %) patients in group A, in group B - 161 (59.0), and in group C were - 25 (9.1%) patients.

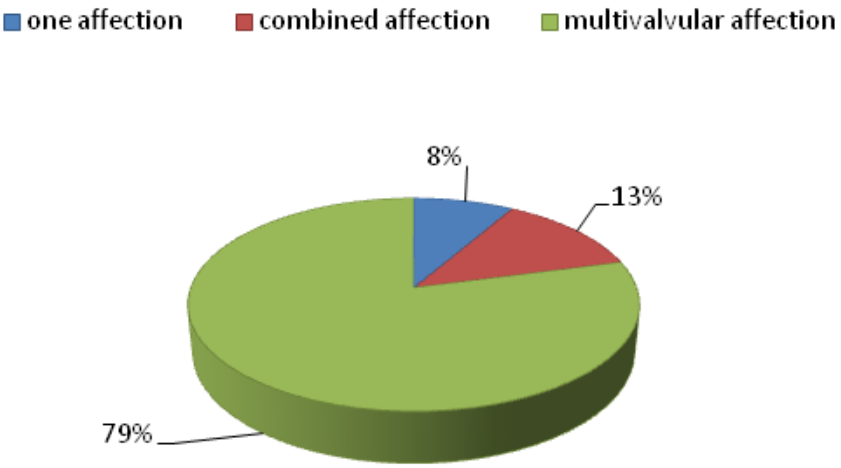

Fig. 1. Affection structure of CRCD (%)

Table 1. Multivalvular affections met according to age peculiarities

Types of multivalvular affections	Group A n=64 (%)	Group B n=134 (%)	Group C n=18 (%)	In total n=216 (%)
Bicuspid valve and aortic valve	30 (46,9)	34 (25,4)	3 (16,7)	67 (31,0)
Bicuspid valve and tricuspid valve	7 (10,9)	12 (8,9)	2 (11,1)	21 (9,7)
Bicuspid valve, aortic valve and tricuspid valve	27 (42,2)	88 (65,7)	13 (72,2)	128 (59,3)

Results and evaluations. During the retrospective analysis determined that chronic rheumatic cardiac diseases among South Kazakhstan population are occurred mostly in women (54.2%) than men (45.8%).

In fact, patients at 40-60 (161 or 59.0%) need stationary treatment, 18.0% (29 people) of them were admitted from distant villages to the rheumatology department with the first cardiac rhythm disturbances and with acute complications, or at the stage of blood circulation decompensation. Perhaps this is a result of the fact that due to the deterioration of social conditions at the time of reorganization clinics in remote villages were closed and the wrong medical care was provided. Today, special attention is paid to the measures of delivery the proper health care to the population. It should be noticed that the rheumatic treatment improvement was introduced into practice in 16 regions of the Republic of Kazakhstan.

During Doppler echocardiography analysis of affections developed from CRCD diagnosed one affection at 23 (8.4%), bicuspid affection at 34 (12.5%) and multivalvular disease at 216 (79.1%) patients (picture 1).

At 34 patients with bicuspid affection in comparison with excessive insufficiency (26.1%) and the invisible insufficiency (30.4%) are frequently found elevated constriction (43.5%). These data correspond to the data of other authors / 4, 6 /. The area of the bicuspid valve angustus constriction among patients with CRCD in South Kazakhstan region amounted to 0: 8 cm. Patients age was 40-60, restenosis was made to 5 (1.8%) patients and 22 (8.1%) of them were with valve implant.

During structure evaluation of composite affections was determined that injuries of the bicuspid valves, aortic valves and tricuspid valves (128 cases or 59.3%) are more frequent in comparison with the injuries of bicuspid valves (21 cases, or 9.7%) tricuspid valves and aortic valves (67 cases or 31.0%). The older the patients' age, the worst composite affection and the most frequent the injuries of bicuspid valves, aortic valves and tricuspid (Table 1). Perhaps this is not only because of the delayed medical care, but also because of the negligent attitude of patients to their health.

During heart disorder analysis by ECG revealed the older the patient, the more frequently occur affections and more difficult to cure it (Table 2). To be specific, heartbeats disorder was in group A 48.3%, in group B 77.6%, and in Group C 96.0%. Cardiac murmur arrhythmic (in group A 47.6%, in group B 64.0%, in group C 66.7%) is widely met in comparison with the extrasystole (14.4%, 16.8% and 27 6%, respectively) and tachycardia (31.8%, 16.8% and 6.9% respectively). Disturbances of cardiac conduction in group A reached 29.6%, in group B - 40.4%, in the group C - 48.0%. Bundle-branch block is frequently met (88.5 %, 89.2% and 91.2%, respectively) in comparison with the level of sinuartrial block (3.8%, 3.1% and 0%, respectively) and atrioventricular heart block (7.7%, 7.7% and 8.3% respectively). During the comparison of the left bundle branch and the right bundle branch the second one met 4 times more often.

Table 2. Affections of CRCD met according to age peculiarities

Affections	Group A n=87 (%)	Group B n=161 (%)	Group C n=25 (%)
Cardiac rhythm disorders	42(48,3)	125(77,6)	24(96,0)
- cardiac murmur			
- extra systole	20(47,6)	80(64,0)	16(66,7)
- polycardia	6(14,4)	21(16,8)	7(29,2)
- bradycardia	14(33,3)	21(16,8)	1(4,1)
	2(4,7)	3(2,4)	
Cardial conduction disorders	26(29,9)	65(40,4)	12(48,0)
- Left bundle-branch block			
- Right bundle-branch block	1(3,8)	2(3,1)	1(8,3)
- Bundle-branch block	2(7,7)	5(7,7)	11(91,7)
	23(88,5)	58(89,2)	
Blood circulation decompensation	-	2(1,2)	5(20,0)
Acute cardiovascular insufficiency	1(1,1)	2(1,2)	3(12,0)
Thromboembolic disorders	-	3(1,8)	2(8,0)
Hypertension	-	11(6,8)	3(12,0)
Exudative pericarditis	1(1,1)	1(0,6)	2(8,0)

Explanation is given in the article.

Blood circulation decompensation at chronic cardiovascular insufficiency is at the first place among the chronic rheumatic cardiac diseases with dangerous complications for health, this was 20% in group C (table 2). These data correspond to data of other authors /1,6/. In spite of the fact that cardiovascular insufficiency is found in all groups, it was 12% in the group C. As shown in Table 2 thromboembolic disorders were found in groups B and C, thrombus in the heart was found at 2 patients among the 60 years old patients. It is related to the fact that the chronic cardiovascular disorders and rheological blood peculiarities disturbances developed due to long-term chronic rheumatic cardiac disease. Although hypertension has not been found among young people, it has been found at middle and old-aged people 6.8% and 12.0%, respectively. It may depend on the consequences or additional diseases. Exudative pericarditis was met in all groups, but in group C this index was higher. Exudative pericarditis was found among patients who had occasional rheumatic fever and kinesis of rheumatic inflammation process.

We paid attention to other diseases of old-aged patients with CRCD. These diseases include anemia, diabetes mellitus, ischemic heart diseases, chronic pyelonephritis, osteoarthrosis, metrofibroma in women etc.

Conclusion.

As a result of retrospective analysis, it was found that chronic rheumatic cardiac diseases among the population of the South Kazakhstan region are more common in women. Index of multivalvular affections (79.1%) is higher than indexes of one (8.4%) and combined affections (12.5%). Heartbeats disorders is frequently met among the various disorders, it was in group A - 50.6%, in group B - 77.6% and in group C - 96.0%. blood circulation decompensation, cardiovascular and thromboembolic disorders constitute life-threatening situation for older people. During the delivering medical care it should be taken into account the age characteristics of the patients and patients must take drugs in time for the prevention of complications.

REFERENCES

1. Demina A.B., Radenska-Lokovok S.G., Pholomeeva O.M. Prichiny smerti bolnykh s revmaticheskimi zabolevaniyami v Moskve// Klin.med. – 2005. - №1. – P.36-43.

2. Pholomeeva O.M., Erdes Sh.Ph., Nosonova V.A., Tendenciya v izmenenii pokazatelei zabolevaemosti revmaticheskimi boleznyami naseleniya RF za 5-letnii period (1999-2003) // Ter.archix. -2005. - №5;

3. Nosonova V.A., Kuzmina N.N., Sovremennaya klinicheskaya kharakteristika revmaticheskoi likhoradki v vozrastnom aspekte // Klinicheskaya revmatologiya. – 1997. - №2. –P.6-8

4. Polubencev E.I. Revmaticheskie klapannye porazheniya serdca, mekhanizmy formirovaniya, rannyaya evoluciya, differencialnyi diagnoz: avtoreferat diss. – M., 1995. – 26 p.,

5. Nosonova E.L. Klinicheskie rekomendacii. Revmatologiya.– 2005

6. Ermolina L.M. Ostraya revmaticheskaya lichoradka. Khronicheskiie revmaticheskie bolezni serdca. 2004.