

THE IMPORTANCE OF COMORBID ILLNESSES IN CHILDREN WITH CONGENITAL HEART DISEASES IN THE POSTOPERATIVE PERIOD

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ABSTRACT — The peculiarities of extracardiac pathology have been studied in 52 children after atrial septal defect correction. It was determined that in patients with the SPLT in the structure of the accompanying pathology the leading place belongs to the hypoxic-ischaemic encephalopathy, repetitive respiratory infections and combinations of these diseases. The dynamics of monitoring in 6 months after the Cardio-surgical correction showed a significant reduction in the frequency of occurrence of extracardiac diseases. It was stated that in children with the studied heart disease in early postoperative period associated comorbid diseases increase the number of violations of the heart activity.

KEYWORDS — congenital heart disease, atrial septal defect, children, comorbidity.

It is known that in recent years there has been an increase in the number of operations on correction of congenital heart defects (CHD) in children during the first years of life due to advances in Pediatric Cardiac Surgery and it is associated with the expansion of early surgical care, improving of the quality of the used equipment, etc. [1, 2]. The state of the operated child, as well as the duration of rehabilitation therapy, is not only determined by the peculiarities of cardio-vascular system, the volume and specific features of intervention, but by the presence of concomitant pathology.

Under modern conditions, great attention is paid to comorbid diseases in various somatic pathology [3]. Different authors describe the presence of various diseases which accompany CHD. At the same time, there has been no detailed study of the structure of extracardiac pathology in certain heart diseases after operations, and its importance in children, especially infants has not been determined either [4, 5].

The aim of the investigation: to set the importance of the accompanying pathology in CHD after surgical corrections in children in the first year of life.

The children is characteriristics and methods of investigation. Under our supervision were 52 children, ranging in age from 3 months to 1 year who undergone cardiosurgical correction of secondary atrial sep-

tal defect (SASD). Clinical picture of congenital heart disease was characterized by the classic signs. The children were divided into two groups. The first consisted of 21 children with comorbid diseases, among which the leading ones were: hypoxic-ischaemic encephalopathy (HIE) with various syndromes; losing anemia of low level; repeated respiratory infections; gypotrophy of the 1 degree. The second included 31 patients with various combinations of the associated pathology.

RESEARCH METHODS

Anamnestic, clinical, instrumental (ECG, Echocardiography) and statistics (methods of variation statistics).

Results of the study

CHD in 48,5% were diagnosed antenatal (from the anamnestic data), in other cases - in the first months of life. We have analysed the accompanying pathology in 1 and 6 months after cardiosurgical correction of congenital heart disease carried out under relatively similar conditions.

In the structure of the associated pathology in the first group in a 1 month after the surgery the leading ones were HIE and losing anemia (table). 6 months later the frequency of concomitant pathology decreased considerably with relatively high numbers of levels of repeated respiratory infections (13,5%). This shows that successful operative correction CHD cardio surgery on the heart, normalization of the hemodynamics, rehabilitation therapy in 6 months reduce the frequency of comorbid illnesses. Reduction in the frequency of occurrence of comorbid diseases in the second group is also due to the normalization of hemodynamic conditions and ongoing therapy. The high frequency of respiratory diseases (15,4%) is probably connected with the continuing enrichment of the pulmonary circulation in these patients even after the operation, and reducing of the immune protection factors. In some cases, they are probably caused by the

availability of seasonal peaks and contacts of these children.

We were especially interested in the condition of cardiac activity in the children in compared groups in the postoperative period. At first (in a 1 month after the heart surgery) clinical manifestations in the first and second groups were not significantly different. It was stated that in the second group in 6 months after the operation bradycardia was met twice as often as in the first group. The muffling of heart tones at this time was noticed in two children of the first group and in the compared group in — 9. In a few cases in both groups a systolic murmur was determined (Table 1).

Table 1. The frequency of comorbid diseases (%) in SASD in children early after the operation

Comorbid diseases	Time	
	In a 1 month	In 6 months
I-group		
a) HIE	23,1	9,3
b) hypotrophy of the 1 degree	7	2
c) losing anemia of low level	20	10
d) repeated respiratory infections	15	13,5
II group: different combinations of these diseases	34,9	27,8

ECG detected bradycardia (17), rarely recorded moderate tachycardia (5), single extrasystolia; in addition there were blockades of the right leg of the beam of Guisa (13), half full (7) and full (3) atrioventricular blockades. The violations of the heart rhythm and conductivity on the ECG in 6 months were significantly more common in the second group (36,2%) than in the first one (12,3%).

On Echocardiography the presence of valvular dysfunction was seen in three children of the first group and in 12 patients of the second one. Moderately expressed manifestations of valve dysfunction were more often diagnosed in 41,4% of the patients long after heart surgery. This comparative analysis shows that the heart disorders are most often found in 6 months than in a 1 month after the Cardio-surgical correction of congenital heart defect. High level of frequency of these disorders in patients in the second group can be explained by the influence of concomitant accompanying pathology.

Thus, it was determined that in patients with the SPLT in the structure of the accompanying pathology the leading place belongs to the hypoxic-ischaemic encephalopathy, repetitive respiratory infections and combinations of these diseases. The dynamics of moni-

toring in 6 months after the Cardio-surgical correction showed a significant reduction in the frequency of occurrence of extracardiac diseases. It was stated that in children with the studied heart disease in early postoperative period associated comorbid diseases increase the number of violations of the heart activity.

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