

Medical rehabilitation

The effect of physiotherapy on blood pressure in children with respiratory tract diseases.

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Question

Arterial hypertension is an essential, often unestimated medical problem among school youth. Maintaining the low blood pressure in children, should be an important point of pediatric preventive healthcare. In our study we he considered the influence of physiotherapy on blood pressure level in group of 200 children aged from 8 to 15.

Methods

Blood pressure measurments were taken during the rehabilitation camp for children in Szklarska Poręba in July 2014 and 2015. Children selected for the study suffered from asthma or recurrent respiratory infections. Two times a day, before and after physiotherapy, measurements have been taken (in the morning before exercises and in the afternoon 20 minutes after excercises). During the camp, children were examined five times. Created database contained 1208 scores of systolic and diastolic blood pressure. Clinical control group contained 50 children who were not participating physiotherapy classes in the day of measurement.

Results

Systolic blood pressure after physiotherapy was significantly lower than before it. That result was achieved in every five series of measuring. Moreover diastolic blood pressure was also significantly lower after physiotherapy in the 4-th series of measuring. In control group blood pressure measured in the afternoon was higher than in the morning.

Conclusions

Our studies show that morning exercises can significantly reduce blood pressure in children during the day. That can be used in early prevention of primary hypertension.