

Psychological screening of 8-year-old children with aortic arch obstruction and their families

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Introduction

Children with aortic arch obstruction, particularly those with single-ventricle physiology, have some of the highest rates of neurological injury compared to children with other congenital heart diseases. At school age, approximately one-third of these children manifest cognitive or behavioral problems. Together with the chronic heart condition, these problems pose a burden on parents. Furthermore, parents may feel the need to protect their child and compensate for negative disease related experiences. This can result in a parenting style called compensatory parenting. To explore factors contributing to the development and perseverance of compensatory parenting, we conducted a broad psychological screening of families with a child with aortic arch obstruction.

Methods

We have currently screened 12 eight-year-old children with aortic arch obstructions and their parents. Children were screened for intelligence, executive functioning, emotional and behavioral problems, and quality of life. Parents were screened for psychological problems, quality of the partner relation, sense of control, coping, protective parenting, and perceived vulnerability of the child.

Results

The IQ of the children seems comparable to that of general population, but all children showed executive function problems which hinder their school performance and daily functioning. Furthermore, two-thirds of the children showed behavioral problems which were mainly internalizing. Almost half of the parents had relation problems or were divorced and almost half of the mothers had psychological problems. All parents indicated that they perceived their child as vulnerable and half of the parents were overprotective towards their child.

Conclusions

Eight-year-old children with aortic arch obstruction and their families encounter (neuro)psychological difficulties that have a profound impact on their daily functioning. Structured follow-up is necessary to support these families and prevent escalation of problems by early identification.