FEEDING DYSFUNCTION IS ASSOCIATED WITH GROWTH FAILURE IN PRESCHOOL-AGED SINGLE VENTRICLE PATIENTS

Poster Contributions
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Background: Feeding and growth problems present early in infants with single ventricle defects but often remain suboptimal during childhood despite surgical palliation. Maladaptive mealtime behaviors or interactions, known as feeding dysfunction, may contribute to these feeding problems. We sought to determine the prevalence of feeding dysfunction in children with single ventricle defects, identify associated risk factors and determine whether feeding dysfunction is associated with poor growth.

Methods: Patients aged 2-6 years with single ventricle defects presenting to Children's Hospital of Wisconsin for routine cardiology follow-up were prospectively identified. All patients had completed stage II or stage III palliation. Parents of the patients completed 2 validated instruments for assessment of feeding dysfunction; the Mealtime Behavior Questionnaire and the About Your Child’s Eating questionnaire. Demographic and diagnostic data were collected retrospectively from chart review.

Results: Instruments were completed for 56 patients; median age was 39 months. Twenty three (41%) patients had a history of gastrostomy (G) tube placement with 12 requiring current G tube use for at least partial nutritional support. Overall, 28 (50%) patients had some form of feeding dysfunction. Compared to a normal reference population, single ventricle patients had statistically-significant differences in food manipulation (p<0.001), mealtime aggression (p=0.002), choking/gagging/vomiting (p<0.001), resistance to eating (p<0.001) and parental aversion to mealtime (p<0.001). Weight and height for age z-scores were significantly lower in subjects with feeding dysfunction (-0.84 vs. -0.33; p=0.049 and -1.46 vs. -0.56; p=0.001 for weight and height respectively). Current G tube use was the only risk factor identified for feeding dysfunction.

Conclusions: Feeding dysfunction is common in children with single ventricle defects, occurring in 50% of 2-6 year-olds in our cohort. Feeding dysfunction was associated with worse growth parameters. Current G tube use was associated with presence of feeding dysfunction. Outcomes may be improved with early identification of feeding dysfunction.