

QA66 – CHD with Dysmorphic Syndrome

QUESTION:

We have a 14 month old infant that we have been following since birth. She was born with CHD with a large ventriculoseptal defect that was repaired about 8 months ago. She also has a dysmorphic syndrome due to translocation of the fifth and ninth chromosomes. We have been told by the geneticist that this is a very unique case, so we do not know what to expect for her growth. She has been diagnosed with failure to thrive because her wt gain has been very slow. Her kidney ultrasound was normal, and so was her bloodwork.

We did not have much luck with increased velocity of wt gain after concentrating the Enfamil formula for bottle feeds. She was finally started on an NG tube a few months ago, but it has decreased her oral feeds during the day. She continues to pull the tube out and is very irritable. Mom has a difficult time feeding her solids or liquids. Her growth is still very slow. She was changed to a G-tube recently and the RD with the cardiologist recommended a change to PediaSure now that she is past 1 yr old. She weighs less than 12#, and is about the size of a 3 month old.

I thought I read somewhere that kids need to be about 22# before they start on PediaSure. Is this true? What would you recommend?

ANSWER:

Pediatric formulas such as PediaSure are available to meet the unique nutrient needs of the 1-10 year old child. In order to meet nutrient needs, these products are more nutrient dense than infant formulas. For example: PediaSure contains 3 grams of protein, 1.7 meq of sodium, and 97 mg Ca per 100 cc's compared to an infant formula which may contain 1.5 grams of protein, .6 meq sodium, and 53 mg calcium per 100 cc's. As a result of these differences, the renal solute load is somewhat higher in these products when compared to an infant formula.

The decision to use or not use PediaSure in the patient mentioned should be based on a thorough assessment of growth, feeding, medical status, and estimated nutrient needs. The patient mentioned may have increased energy needs and limited intake secondary to feeding difficulties. PediaSure would be advantageous in meeting this child's nutrient needs on smaller volumes, but if fluid intake and renal function is an issue, the increased renal solute load may be problematic. If this is true, can the child's nutrient needs be met on another less nutrient dense formula by assuring adequate volume through the G-tube with supplemental oral feeding?

The actual growth expectations and nutrient requirements for this child may be unknown secondary to the chromosomal disorder. Again, in the face of "unknowns", a thorough assessment may guide the decision making. What is the actual energy/protein intake? What are weight and linear growth rates over time? What do nutritional labs indicate? Is there evidence of increased losses? With this information and careful monitoring decisions can be made regarding the use of PediaSure or a similar formula.

References:

Pediatric Nutrition Handbook 4th Ed AAP 1998.

Pediatric Manual of Clinical Dietetics ADA 1998.