Reference:

Fish Oil supplementation Improves Left Ventricular Function in Children with Idiopathic Dilated Cardiomyopathy


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Summary:

Idiopathic dilated cardiomyopathy (DCM) refers to congestive heart failure which is secondary to abnormal functioning of the ventricles (predominantly left) in the absence of congenital, valvular or disease of the coronary artery as well as any other systemic diseases which are thought to cause myocardial dysfunctioning. In children, DCM is one of the most common types of heart muscle disease with a frequency commonly ranging between 1-3 cases/100,000 children.

In this present study, the researchers evaluated the potential effects of fish oil containing DHA/EPA in children with DCM (n=18) with comparable evaluations performed on healthy children (n=12). Cardiac assessments including measurements of LVEF (left ventricular ejection fraction) were performed at the beginning and after an average of 6.6 months of receiving 10 ml of fish oil containing DHA/EPA each day. LVEF is one of many measures for assessing heart functioning and patients with heart failure often show low LVEF. Following daily supplementation of fish oil containing DHA/EPA, the LVEF was found to increase significantly (by 8.4% overall) in the DCM patients whereas no significant improvements were found over this time interval in DCM patients not receiving fish oil or in healthy children receiving fish oil supplementation. The authors concluded that fish oil appeared to result in accelerated improvement of left ventricular function in the children with DCM.
Dr. Holub's Comments:

Since this was a relatively small study wherein only 18 DCM patients were studied with respect to fish oil supplementation, it will be of future interest to attempt confirmation of these very interesting findings using varying dosages of DHA/EPA and ratios of these two marine-based omega-3 fatty acids. If confirmed in larger follow-up studies, the utilization of DHA/EPA as a natural therapeutic regiment in addition to the standard anticongestive therapy of children with DCM may eventually be introduced into clinical management of these patients.