Dyslipidemic (DLP) Obese Teenagers Present Similar Intima Media Thickness (IMT) as Familial Hypercholesterolemia (FH) Teens and May Warrant the Same Treatment Approach
Laurent Legault, Marc Girard Montreal, Canada; Jacques Barth Los Angeles, CA

Dyslipidemia in obese teenagers is associated with an eventual higher adult IMT. Adult IMT is a good predictor of future cardiovascular disease (CVD) whose incidence is expected to dramatically rise in the upcoming years. We need better tools to identify high risk individuals and optimize treatment approaches for prevention of future CVD. While FH is well known for its role as a marker of future CVD risk, DLP in obese teens has not quite been as extensively studied.

We measured IMT in teenagers with dyslipidemia and compared them with a group of teenagers with FH. Sixteen teenagers were recruited on the basis of their weight (>97th percentile) and presence of high tryglycerides (>1.7mmol) and low HDL-C (<1.0mmol). IMT of the left and right carotid arteries (IMTc) were measured and compared to 14 teens with FH. Average IMTc on the left side in the DLP group was 0.5827 +/-0.0733mm, on the right, 0.5362 +/-0.0719mm. This was not statistically different from the average left IMTc of FH which was 0.5697 +/- 0.9473mm and right, 0.5481 +/-0.9131mm, these were 10% higher than a control group with normal lipid profiles. IMTc did not correlate with any of the lipid values.

IMTc are comparable in DLP teenagers to values found in FH, a known high risk group for future CVD, and are higher than in the general teen population. While the risk is not based on the same lipid profiles, the already increased cIMT values suggest that DLP individuals may warrant the same approach towards prevention of future CVD events.