LIPID PROFILES PERFORMED AT THE TIME OF ROUTINE PHYSICAL EXAMINATIONS IN 9-11 YEAR OLDS WITHIN TEXAS CHILDREN’S PEDIATRIC ASSOCIATES PRIMARY CARE PEDIATRIC CLINICS

Poster Contributions
Hall C
Monday, March 31, 2014, 9:45 a.m.-10:30 a.m.

Session Title: Prevention: Lipid Therapeutics and Subclinical Disease
Abstract Category: 20. Prevention: Clinical
Presentation Number: 1259-149

Authors: Thomas Seery, Douglas Moodie, Constance Cephus, Kristen Sexson, Texas Children’s Hospital, Houston, TX, USA

Background: We sought to study the rate of hyperlipidemia and hypertryglyceridemia detected by screening at routine physical examinations in the pre-adolescent population.

Methods: A retrospective medical record review of all 9 to 11 year olds who had a physical examination from January 2010 to July 2013 within Texas Children’s Pediatric Associates clinics was performed. For those who had a lipid panel obtained at the visit, patient age, sex, ethnicity, and lipid results were determined.

Results: 12,712 children had a screening cholesterol; abnormal (borderline or elevated) total cholesterol (TC) was found in 4,709 (30%). The mean BMI was 19.3 kg/m² (SD = 4.2), TC was 162 mg/dL (SD = 30), low-density lipoprotein (LDL) was 92 mg/dL (SD = 25.4), high-density lipoprotein (HDL) was 52 mg/dL (SD = 13.2), and triglycerides (TG) 103 mg/dL (SD = 64.1). Males were more likely than females (Figure 1) to have elevated TC (p <0.001), LDL (p = 0.008), and TG (p = 0.003) while females had lower HDL (p <0.001). Hispanics were more likely to have elevated TG (p <0.001) and lower HDL (p<0.001) though there was no difference in TC and LDL when compared to non-Hispanics.

Conclusions: A concerning number of patients had an elevated screening lipid profile. Efforts to educate primary care providers regarding recommendations for universal lipid screening in the pre-adolescent population are needed to prevent underdiagnosis. Targeted interventions by gender and ethnicity may be needed to alleviate the burden of abnormal lipid profiles.

![Lipid Profile Graph]

Cholesterol (mg/dL)
- Normal <170
- Borderline 170-199
- Abnormal ≥199
LDL (mg/dL)
- Normal <110
- Borderline 110-129
- Abnormal ≥129
HDL (mg/dL)
- Normal ≥45
- Borderline 40-45
- Abnormal <40
Triglycerides (mg/dL)
- <75
- Borderline 75-99
- Abnormal ≥100

Years
- Normal
- Borderline
- Abnormal

Non-HDL (mg/dL)
- Normal <120
- Borderline 120-144
- Abnormal ≥144