Opportunities for Primary Prevention of Cardiovascular Disease Observed through Incidental Findings of Elevated Lipid Profiles in Clinical Research Centre Trial Participants

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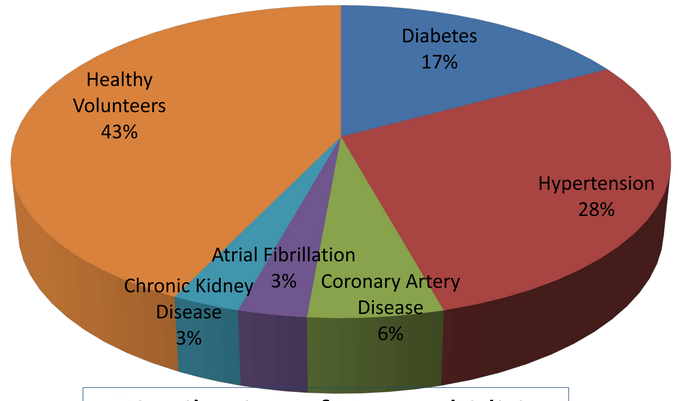
Objective: The purpose of the study is to present the findings of incidental dyslipidemia detected in clinical trial participants in a range of clinical trials undertaken in a Clinical Research Facility, to highlight opportunities for primary prevention of cardiovascular disease.

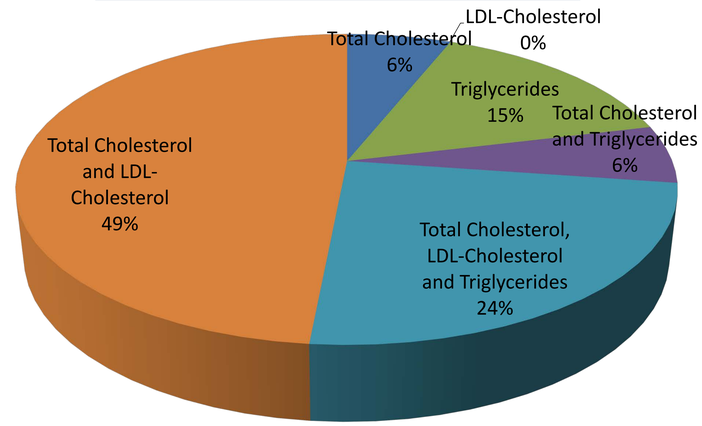
Methods: This was a retrospective, single centre analysis of data derived from clinical trial participants who had been involved in a range of studies in the Clinical Research Centre in Tayside from 2019-2021.

Results: We identified 35 of mean age of 59 years who were incidentally found to have elevated lipid profiles. They were predominantly male (64.7%), with an average BMI of 33.57 kg/m^2 (range 24.5 to 63.6). Of these subjects, 6 (17.1%) had pre-existing Type 2 Diabetes, 10 (28.6%) were known to have hypertension, 2 (5.7%) had coronary artery disease, 1 (2.9%) had Atrial Fibrillation and 1 (2.9%) had pre-existing Chronic Kidney disease.
Interestingly, 42.8% of these patients with incidental dyslipidemia were healthy volunteers.

Incidental lipid level elevations were seen across total cholesterol, LDL-cholesterol and trigylcerides. Mean total cholesterol level 5.8 +/-1.0. The mean LDL level was 3.20 +/- 0.88 mmol/L and mean Trigylceride value was 2.42 +/- 1.3 mmol/L. Mean HDL was 1.45 +/- 0.49 mmol/L



Distribution of Co-morbidities



Distribution of Dyslipidemia

Conclusion:

We highlight the opportunity to detect previously unknown elevated levels of lipid profiles in participants across a range of clinical trials, including a significant number of healthy volunteers. These data indicate that participating in clinical trials can be of benefit in early detection of cardiovascular risk factors, such as high cholesterol in healthy volunteers, thus playing an important part in primary prevention of cardiovascular disease for these subjects.