Background: The early repolarisation (ER) pattern has been associated with sudden cardiac death. The prevalence of this has not been described in the Indian population. Its prevalence varies in various ethnic groups.
Methods: The aim of this study was to look at the incidence of ER in healthy young Indian population and compare it with other ethnic origins.

ECGs were obtained from 554 apparently healthy Indian individuals attending cardiac screening. Participants completed a questionnaire stating symptoms, medical and family history, and physical activity (42% ≥ 10 hr. /wk.). Individuals were aged from 12 to 35. Heart rate, QRS duration, QTc interval and voltage criteria for LVH was reported. The presence of ER was reported independently by three cardiologists (RN, GM, NK), with decisions by consensus. If required, a senior colleague (EB) adjudicated. ER was defined as J-point elevation of ≥0.1mV in two consecutive inferior or lateral leads and classified as notched or slurred. ST segments were defined as rapidly ascending or horizontal/descending.
Results: ER was seen in 52 individuals, 48% in lateral, 42% in inferior and 21% in infero-lateral leads. J waves were notched in 56% and slurred in 62%. 90% of ER was associated with a rapidly ascending ST segment. The higher mean age was also seen in lateral (20.8±5.8 vs 18.1±4.8), inferior (22.2±6.8 vs 18.6±5.2), notched (22.6±8.0 vs 18.5±5.2) and up-sloping ST segment (21.4±6.8 vs 17.9±4.7) groups. 18-35yr olds exercised more than under 18s (62.0% vs 31.2% ≥10 hours/week). ER was associated with lower heart rate and shorter QTc. ER was more common in males and the one who were physically active.
Conclusion: ER is present in 9.4% of healthy young Indians. This is comparable to population studies although lower than in African Americans and athletic white Caucasians. The study population was young and active and prevalence was expected to be higher. Our study shows individuals with ER were older in contrast to previous studies that have associated ER with younger age. This may reflect the youth of our population, endocrine influences at puberty and higher exercise levels in 18-35yr olds. There may therefore be a peak prevalence of ER in the late teenage years or early 20s. Larger studies are required.

Small for gestational age Vs. appropriate for gestational age: Analytical comparison of cord blood lipid profiles and insulin levels in term newborns (SAGA-ACT study)

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Background: Identification of cardiovascular risk factors at the earliest stage of life is vital particularly in the infants with intrauterine growth restriction. We determined the difference in cord blood lipid profile and insulin level between small-for-gestational-age (SGA) newborns and appropriate-for-gestational-age (AGA) full-term newborns.
Methods: In this cross-sectional study, full-term infants who were born between June 20, 2013 and August 19, 2013 at the obstetric unit of Gandhi Medical College and Hospital, Secunderabad, India were enrolled in the study. Based on the gestational age and body weight, these newborns were divided in to SGA group (n=51; test group) and AGA group (n=52; control group) after receiving the informed consent from all participant's mothers. Differences in cord blood lipid profile and insulin levels were estimated between the two groups.
Results: The newborns in the SGA group had higher cholesterol levels (60.21±15.42 vs. 54.08±13.77 mg/dL, P<0.01), higher triglyceride levels (42.89±24.90 vs. 32.67±17.74, P<0.01), and higher low-density lipoprotein levels (33.71±14.37 vs. 27.56±8.94, P<0.01) as compared to the newborns in the AGA group. High-density lipoprotein levels and insulin levels were comparable between both the groups. Anaemia was highly prevalent among mothers of both the groups.
Conclusions: SGA newborns are significantly associated with higher lipid profile as compared to AGA newborns; hence, they are at higher risk for developing cardiovascular events much early in life. SGA newborns should be closely monitored for cardiovascular morbidities during childhood, adolescence and early adult life.

A retrospective study of occurrence of new onset diabetes mellitus in patients on statin therapy

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Background: The study was carried out to assess the risk of new diabetes mellitus in patients on statin therapy.
Methods: Hospital records of 1000 non-diabetic subjects (mean age 63.2 years) attending Preventive Cardiology Clinic of a tertiary care centre, who had been receiving statin therapy for at least 5 years and regular follow up (study group) were compared with records of 400 age, gender, and BMI matched non-diabetic subjects who never received statin therapy and were on follow-up for at least 5 years (control group).
Results: At 5 years, mean fasting plasma glucose (FPG), mean 2-h post prandial plasma glucose (PPG) and mean HbA_{1c} levels of study group were significantly higher as compared to control group (p<0.001, p=0.016, and p<0.001 respectively). There was a higher incidence of IFG, IGT and DM, either separately or in combination in statin group (13.7%, 5.8% and 11.9%, and 31.4% for IFG, IGT, DM, and any of these) as compared to controls (9.8%, 3.3%, 7.0%, 20% for IFG, IGT, DM, and any of these) and this difference was statistically significant for a combination of any of these (p=0.044, 0.049, 0.007, and <0.001). Simvastatin was associated with significantly higher incidence of DM as compared to other statins (p=0.018). The incidence of DM with statin therapy was significantly higher with 20-40 mg/day as compared to low dose statin or control group (p<0.001). On multivariate analysis, statin use did not emerge to be significantly associated with development of diabetes mellitus (p=0.696). However, high doses (20-40 mg/day) independently increased the risk (p<0.001).
Conclusions: Statins are associated with increased occurrence of new onset diabetes mellitus, impaired fasting glucose, and impaired glucose tolerance, either in combination or individually. The risk is particularly significant with use of high dose statins, independent of other risk factors, and seems to be a class effect of statins, though the association appears strongest for simvastatin.