

SHA 060. The impact of different coronary risk factors on the degree of coronary calcification in the Saudi population

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Background & Aim: The amount of coronary calcification measured by coronary computed tomography (CCT) correlates with increased risk of coronary events. We aimed to measure the effect of coronary risk factors on the degree of coronary calcification in clinically indicated CCT studies in the Saudi population.

Methods: Clinically indicated patients were scanned using 64 slice CCT to measure Agatston coronary calcification score.

Results: 1287 patients were scanned with mean age of 52 ± 13.2 years, 65% males, & 35% females. Chest pain was the indication in 80% of cases. There was 37% diabetic, 58% hypertensive, 23.6% hyperlipidemic, 13% smoker, and 32% with family history of coronary diseases. The mean calcium score was high in males compared to females, 99.6 ± 341 , and 54.2 ± 182 , $P < 0.001$, in patients ≥ 40 years compared to < 40 years, 92.5 ± 314 , and 6.1 ± 39.4 , $P < 0.0001$, in diabetic pat, compared to non-diabetic, 125.9 ± 387 , and 52.7 ± 212 , $P < 0.0001$, in hypertensive pat compared to non-hypertensive, 114.8 ± 360 , and 25 ± 107 , $P < 0.0001$, in hyperlipidemic pat compared to non-hyperlipidemic, 177.5 ± 407 , and 44 ± 222 , $P < 0.0001$, in n patients with body mass index ≥ 25 compared to those < 25 , 72 ± 295 , and 45 ± 141 , $P < 0.05$ and in patients with HbA1c ≥ 8 compared to < 8 , 152 ± 467 , and 76.4 ± 365 , $P < 0.01$.

Conclusion: Coronary calcification is significantly higher in patients with classical coronary risk factors. Poorly controlled diabetes is associated with higher risk of coronary calcification.

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SHA 61. Efficacy of a single dose intravenous heparin during diagnostic angiography in reducing sheath thrombus formation: A randomized controlled trial

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Background: Femoral arterial sheath thrombosis and distal embolization is a well-recognized complication of cardiac catheterization and may result in serious comorbidities like acute leg ischemia. Heparinized saline flushes are used during diagnostic coronary angiography to prevent thrombus formation within the lumen of the sheath. However, the use of prophylactic intravenous heparin following the femoral arterial sheath insertion is controversial. The aim of this study was to evaluate the effectiveness of 2000 units' heparin intravenous bolus versus saline placebo on thrombus formation within arterial sheath during the diagnostic coronary angiography.

Methods: Eligible patients were randomized to receive either study drug or placebo at the time of femoral sheath insertion. Arterial access was obtained via femoral arterial approach using access 6F–7F sheaths and catheters. The sheath was aspirated and flushed for presence of thrombus after each catheter exchange and at the end of the procedure. Five milliliters of blood was extracted and visualized on clean gauze and if thrombus was noticed further aspiration was performed followed by saline flush. The

primary end point was the effectiveness of study drug on reducing the incidence of sheath-thrombus formation.

Results: 304 patients were randomized into two arms: 147 patients received intravenous heparin and 157 patient received placebo. The baseline characteristics were similar. Sheath thrombi were observed in 20% of the total cohort.

Of the heparin arm, 12% (19 patients) developed sheath thrombus formation versus 26% (42 patients) in placebo arm, p value = 0.002. Adjusted logistic regression showed that the only predictor for the sheath thrombi formation was the study drug. The odds ratio of developing a thrombus when a study drug is not used was 2.5 (95% CI: 1.4–4.5, $p = 0.003$). There were no adverse events noticed.

Conclusion: IV heparin significantly reduced thrombus formation with no adverse events. Therefore, our data suggest using IV heparin routinely.

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SHA 062. Incidence of contrast induced nephropathy in Saudi patient after cardiac catheterization

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Background: Contrast induced nephropathy CIN is an acute deterioration of renal function defined as increase in serum creatinine by 25% above the baseline value within 48 h after administration of contrast agent, several risk factors may aggravate CIN and DM is a strong predisposing factor.

Objectives: To study the effect of contrast administration on renal function and the relation of diabetes mellitus and other risk factors which can predispose patients to CIN.

Methods: Open label, single center study in cath lab a total of 1117 patients underwent cardiac catheterization between January and December 2009, all patients in that period included in this study, Acute coronary syndrome and stable CAD patients.

Results: Total of 1117 patients, 55 (4%) patients developed CIN, 35 (64%) patients are diabetics, 39 (71%) patients are hypertensive, 38 (56%) patients under went diagnostic cardiac cath and 17 (34%) had PCI, 23 (41%) patients had body weight < 70 kg and 44 (80%) patients received omnipaque contrast media.

Conclusion: This study conclude that hypertension and DM are the major risk factors in our patients, diabetic patients in particular should be closely monitored for CIN and preventive measures should be strictly enforced.

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SHA 063. Coronary atherosclerotic disease in Saudi patients

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Introduction and aim of the study: Coronary Artery Disease (CAD) in Saudis is reaching epidemic levels, Type II Diabetes (DM) is the highest in the region. The pattern, and extent of Coronary Athero-Thrombosis (CAT) is not studied. We aim to