



RETROSPECTIVE OBSERVATIONAL STUDY OF PATIENTS WITH NORMAL CORONARY ANGIOGRAPHY REPORTS AND EVALUATION OF PATIENT CHARACTERISTICS AND REFERRAL INDICATIONS FOR INVASIVE CORONARY ANGIOGRAM

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ABSTRACT Since 1990 the science and art of interventional cardiology has penetrated in INDIA and now has more than 1200 cardiac catheterization laboratories in about 1000 cardiac facilities in metropolitan cities and tier 1 and tier 2 cities^[1]. The NIC data shows data on various forms of cardiac interventions performed every year. There has been increase in diagnostic and interventional procedures in India. In such scenario's comprehensive evaluation of the number, nature and distribution of procedures of diagnostic and interventional procedure across the countries in view of conditions associated comorbidities and reference pattern would be highly needed with time to limit and understand causes especially the reference pattern of patients undergoing coronary angiography^[2].

KEYWORDS :

INTRODUCTION -

This was a single center, Retrospective descriptive observational study. Data of all the patients of either gender with age 18 years or more who did undergo coronary angiography, was retrieved from digital library of cardiac catheterization laboratory, in Department of Cardiology, Dhiraj hospital, SBKS & MIRC. Normal coronary angiogram was defined visually, as smooth outlines of coronary arteries or luminal irregularities less than 50% occlusion, confined in multiple angiographic planes as reported by at least two consultant cardiologists. Patients with normal coronary angiogram were included in the study by using non-probability sampling technique following approval of HOD and hospital administration. Clinical and biochemical profile were retrieved from hospital records. Clinical profile included: age, gender, body mass index, smoking habit, and mean systolic and diastolic blood pressure, presence of hypertension, diabetes mellitus, and family history of coronary artery disease, post-menopausal status, current pregnancy and use of oral contraceptives pills in female patients. Biochemical profile included: lipid profile, serum creatinine, blood urea, mean HbA1c level and hemoglobin level, S.TSH, fT3, fT4, Troponin I. Patients who had normal coronary angiogram whose clinical and biochemical profile could not be traced from the hospital record were excluded from the study

SUMMARY -

This study was evaluated on the basis of age, sex, indication of the patient undergoing coronary angiography such as clinical condition such as Unstable angina, chronic stable angina, Nonspecific pain and referral indication. It was observed that out of 323 patients 215 (66.56) were females and 108 (33.44) were males. Maximum number of patients i.e. 223 (69.04) were in the age group of greater than 45 years, 93 (28.79) patients were between 25-45 years and 7 (2.17) patients were less than 25 years age category. 112 (34.67%) patients were studied to have unstable angina, 84 patients (26.02) were having chronic stable angina, and 34 (10.53%) patients were of chronic stable angina. Comorbid conditions such as Hypertension, diabetes, thyroid disorders were also studied. Other ECG changes and non-invasive parameters such as TMT and 2Decho were studied to view the referral indication. It was observed that in the subset of unstable angina maximum number of patients were of greater than 45 years in age associated comorbidities were absent in majority of patients. In the chronic stable angina subset males and females were 19 and 15 respectively however associated comorbidities in this subset was also less. This referral group had 84 patients with females more than males. Only 8 patients were associated to be having comorbid conditions. Other patients such as having LBBB and RBBB were 10 and 14 respectively. False positive TMT test was seen in 10 patients and more females.

CONCLUSION -

1. Identifying cases of normal angiography will reduce referral for such investigation and will save government funds since most of the coronary angiography are done with government assisted funds like Aayushyaman Bharat.

2. This purpose of study is to increase the awareness and to highlight non-coronary causes for ECG abnormalities mimicking ischemia. Avoiding unnecessary coronary angiography will have significant impact on saving national resources. Healthcare expenditure on non-communicable diseases should be directed more towards preventive strategies while cutting down unnecessary expenditure on such unjustified referral patterns.
3. This study how the importance of integration of symptoms, angiography and non-invasive testing.

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