# Acute Myocardial Infarction in a 23 Year Old Smoker Man: A Rare Entity

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**ABSTRACT**
*In the present case study, patient had myocardial infarction at a young age of 23 years. Patient was a cigarette smoker. His body mass index was 31.09 kg/m2. Physical inactivity, lack of green vegetables-fruits in their meal and use of junk food in his life style was common. Unlike other studies, in the present case study, patient was not suffering from diabetes mellitus, hypertension and dyslipidemia. Patient was residing in urban area of Bulandshahr. The present case study strongly suggesting that the effect of cigarette smoking as coronary risk factors is pervasive. Unfavourable effects are enhancement of thrombosis formation, coronary artery disease including onset of myocardial infarction. Knowledge of association of cigarette smoking and coronary artery disease is essential for every medical health care professional to prevent premature deaths due to myocardial infarction. A target oriented programme for the encouragement of youths to stop smoking to improve physical fitness is needed. Improving lifestyle with tobacco cessation, diet with more fruits-vegetables and avoiding junk foods are important to decrease the risk of death due to myocardial infarction.*
**Keywords:** *Smoking, CAD, Infarction, Risk factor*

## INTRODUCTION

Smoking has been shown to be one of the strongest risk factor to induce the premature coronary artery disease [11,12,14]. In India cigarette smoking habits is widely prevalent in youths [8,13]. A study was conducted in Bangalore reported the prevalence of smoking 6.8% among 13-15 years aged students[8]. A cross sectional study conducted in Noida reported an overall smoking prevalence of 8.8% [9]. A number of studies revealed that smoking is significantly associated with greater rate of decrease in cardio-respiratory fitness, lower exercise levels and lower physical endurance [2,7]. Reporting of this case is an attempt to highlight the effects of cigarette smoking in the addicted persons.

## CASE REPORT

A 23 year old man presented to the emergency department, of the hospital with complaints of left side chest pain and breathing difficulty for two hours duration. His blood examination revealed neutrophilic leucocytosis. Renal functions, blood glucose and lipid profile examinations were normal. General physical examination revealed tachycardia, S3 gallop on cardiac auscultation and bibasilar crackles in the lungs. Electrocardiogram was consistent with acute anterior wall myocardial infarction. Patient had sudden fibrillatory arrest and after successfully resuscitation, echocardiogram showed a hypokinetic anterior wall of the heart, with a left ventricular ejection fraction of 40%. He had no past history of diabetes mellitus, hypothyroidism, coronary artery diseases, hepatic diseases, or renal disease. He was unmarried. He weighed 92 kg and was 172 cm tall. His body mass index was 31.1 kg/m$^2$. On further questioning he gave history of smoking. He was not taking appropriate amount of vegetables and fruits in his diet. He was a frequent user of junk foods. Physical inactivity was also noticed in his life style.

## DISCUSSIONS

Most incidence of myocardial infarction commonly occurs at the age of $\geq 30$ years. In the present case report, patient had myocardial infarction at a young age of 23 years. Patient was a cigarette smoker. His body weight, height and body mass index were 92 Kg, 172 cm and 31.1 kg/m$^2$ respectively. He was a junk food eater.

Physical inactivity and lack of green vegetables-fruits intake were also common in his habit. However, he didn't showed history of diabetes mellitus, hypertension and dyslipidemia. The case study of this patient suggesting that cigarette smoking with lacking of green vegetables-fruits in diet and physical inactivity can lead to earlier coronary artery disease and myocardial infarction. A number of studies revealed that smoking is significantly associated with greater rate of decrease in cardio-respiratory fitness, lower exercise levels and lower physical endurance [2 and 7]. A number of study highlighted that tobacco smoking is a prominent cause of myocardial infarction and premature coronary artery disease [1, 3, 4, 6, 10 and 12]. The effect of cigarette smoking as coronary risk factors is pervasive. Unfavourable effects are enhancement of thrombosis formation, coronary artery disease including onset of myocardial infarction [5]. Above findings are supporting to the findings of present case study. Therefore tobacco cessation along with appropriate physical activity and more use of fruits and green fresh vegetables in youth are necessary.

## CONCLUSION

Cigarette smoking, high body mass index, physical inactivity and habit of junk food can lead to earlier maturation of coronary artery diseases and myocardial infarction. Knowledge of association of cigarette smoking and coronary artery disease is essential for every health care professional. So that they can educate the general

population about the danger of cigarette smoking, junk food, physical inactivity and obesity. Improving lifestyle with tobacco cessation, diet with more fruits-vegetables and avoiding junk foods and appropriate physical activity are important to decrease the risk of death due to myocardial infarction.

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