EVALUATION OF SMOKING AS A SINGLE RISK FACTOR FOR ACUTE CORONARY SYNDROME IN ADULT PATIENTS BELOW 45 YEARS

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Introduction

Smoking is well known as a potent risk factor of acute coronary syndrome in young patients as well as in general population, the association of cigarette smoking and other types of smoking like cannabis ,shisha increase this risk. In US the major cause of cardiovascular disease is known to be coronary artery disease (CAD), with 2 out of 10 deaths being associated with CAD,and CAD-related deaths are expected to increase from 17.3 million in 2012 up to 23.6 million in 2030. A high number of patients suffering MI at young age are reported to have a high prevalence of smoking and to be male gender compared with their older counterparts,young patients with ACS have smoked a greater number of cigarette per day compared to old patients but they exeperience the lower pack year history due to their young age. We used the calculation of smoking index as a primordial tool which help in classification of smoker and then after helps in evaluation of patients according their levels of smoking .

Aim of the work

The aim of this study is to determine the patterns of smoking as a single risk factor of acute coronary syndrome in young patients less than 45 years.

Patients and Methods

This study was retrospective and comprised hundred young smoker patients presenting acute coronary syndrome with ST elevation myocardial infarction (STEMI) and non-ST elevation myocardial infarction (NSTEMI) in Alexandria University Hospitals over a period of 3years.Smoking index had been calculated for smokers classification.

Results

Hundred patients matched our inclusion criteria, patients mean age was 38.79 ±4.75 years ,the majority were males (98%), regarding smoking patterns all patients was cigarette smokers 70patients (70%) have smoked cigarette only, 7patients (7%) have smoked cigarette+cannabis ,15 patients (15%) havesmoked cigarette+shisha while 8patients (8%) smoked cigarette+canabis+shisha ,the mean of number of cigarette smoked per day was 25.85±9.51 cigarettes, the mean of smoking duration was 18.88±4.8years.However according smoking index,mild smokers were 5 (5%),moderate smokers was 30 (30%) while heavy smokers were 65 (65%),all of them developed ACS and association with smoking index and type of MI was significant (P=0.012).

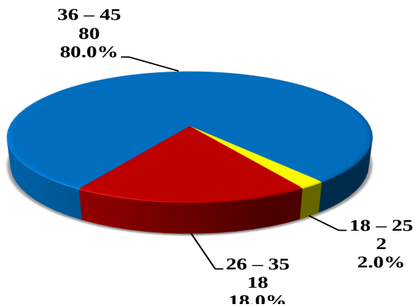

Fig : (1) : Distribution of the studied cases according to age group

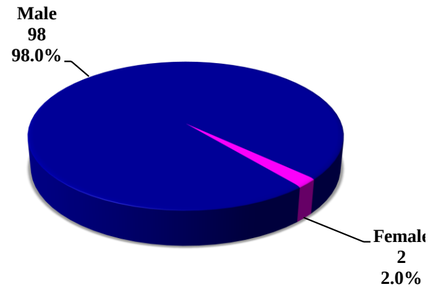

Fig (2) : Distribution of the studied cases according to gender (n=100)

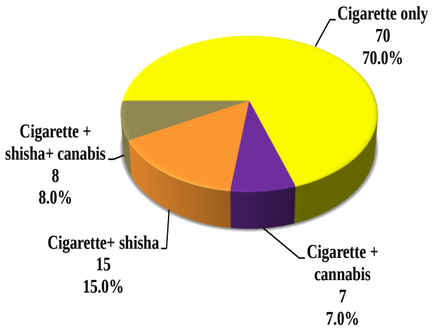

Fig (3) : Distribution of the studied cases according to TYPES of smoking (n=100

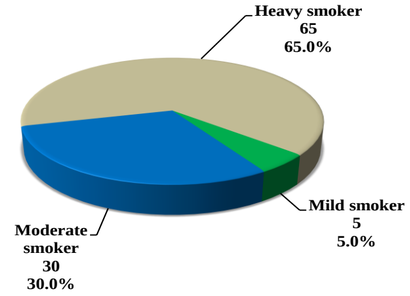

Fig (4) : Distribution of the studied cases according to Smoking index

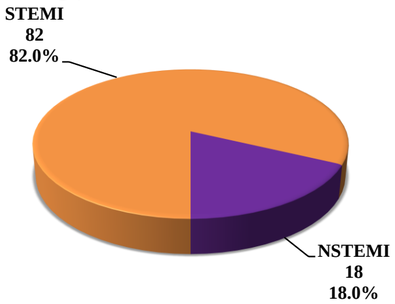

Fig (5) : Distribution of the study according to type of MI

Conclusion

Cigarette smoking has a crucial impact in the development of acute coronary syndrome. The association of cigarette with shisha and cannabis increase the risk of ACS. Patients with high smoking index are most affected by ACS than those with lower smoking index. The calculation of smoking index is very important for patients' classification (Mild, moderate and heavy smokers).