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PREVELENCE OF RISK FACTORS OF ISCHEMIC HEART DISEASE

Introduction

Ischemic Heart Disease is a condition which occur due to inadequate oxygen and blood supply to heart myocardium. The narrowing of the coronary vessels lead to impairment of blood and oxygen supply. The Ischemic Heart Disease is the most common course of death in world wild. Ischemic Heart Disease we can classify (according to ICD 10 classification): angina pectoris, acute myocardial infarction, subsequent myocardial infarction, certain current complication following MI, other acute ischemic heart disease and chronic ischemic heart disease [1, 2].

When see about epidemiology Ischemic Heart Disease affect approximately 1.72 % of world population which near around 126 million individuals. Death rate from Ischemic Heart Disease is, nearly nine million deaths in globally. Most commonly affect men than women. The disease started typically in fourth decayed in the life and incidence increase with age. Among the world wild countries Eastern European countries have high prevalence [3].

For development of Ischemic Heart Disease there are lot of risk factors contribute. We can divide them into three groups. They are non modified, modified and controversial risk factors [4].

None modified: Age, family history of Ischemic Heart Disease, gender (male or female).

Modified: Smoking, diabetes mellitus, obesity, arterial hypertension, sedentary life style, hyperlipidemia, cocaine use, alcohol use.

Controversial risk factors: Stress, type A personality, hyper insulinemia, ACE genotype, left ventricular hypertrophy, fibrinogent, and homosysteine level.

These risk factors we can summaries as a BAD HEART. B for obesity, A for age more than 65, D for diabetes mellitus, H for hypertension, E for ethanol use, A for dyslipidemia, R for relatives or family history and T for tobacco use [5].

Risk factors which course to develop Ischemic Heart Disease, leads to decrease oxygen supply to heart (by atherosclerosis, embolism, vasculitis and vasospasm) or increase oxygen demand to heart (by increase heart rate, left ventricular hypertrophy, exertion, and increase oxygen consumption) [5].

Goal

Evaluate the most prevalence risk factor which contribute to develop Ischemic Heart Disease.

Material and methods of research

Collecting data within time prame 25th of January to 27th of February, from 63 patients which admitted cardiology department of Gomel state clinical hospital No: 3, with Ischemic Heart Disease.

To collect information, survey about anamnesis data of patients like patient age, body weight and height, past medical history, patient complains, smoking and drinking habits, daily physical activity and diet was conducted.

Research result and discussion

The data about risk factors of develop Ischemic Heart Disease which collect from 63 patients can summarize like below. The data of the patients you can see in table N_2 1.

Table 1 – Number of risk actors in patients with IHD

Risk factors		Number of patients
Age	Female > 55	19
	Male > 45	31
Gender	female	25
	male	38
Obesity		40
Present of diabetes mellitus		45
Present of hypertension		58
Alcohol use		22
Smoking		34
Hyperlipidemia		24
Family history		18
Sedentary life style		20
Stress		10

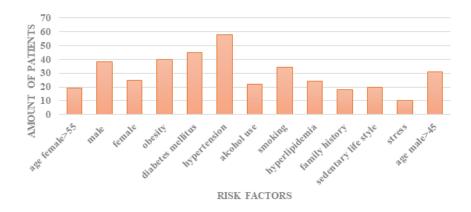


Figure 1 – Amount of patients according to risk factor

Conclusion

According to the data which collected from the patients most prevalence risk factors are present of arterial hypertension (92 %), presence of diabetes mellitus (71 %), obesity (63 %), being male (60 %), smoking (53 %) and the age male > 45 years (49 %). The less prevalence risk factors are hyperlipidemia (38 %), alcohol consumption (34 %), being female (39 %) and age > 55 years (30 %), sedentary life style (31 %), family history (28 %) and stress level (15 %).

LITERATURE

- 1. Adam Feather, David Randall and Mona Waterhouse: Kumar and Clark's clinical medicine, international edition. 10th Ed. 2020. Pg:669 to 791.
- 2. Brown JC. Gerhardt TE, Kwon E, Risk Factors for Coronary Artery Disease. [Updated 2023 Jan 23]. In.StatPearls [internet]. Treasure Island (FL). www.ncbi.nlm.nih.gov
- 3. Moin AB K. Muhammad JH. Shamasa NA. Global epidemiology of ischemic heart disease: result from global burden of disease study. 2020. www.ncbi.nlm.nih.gov
- 4. Kotchen TA, Ischemic Heart Disease. In: Fauci AS, Braunwald E, Kasper DL, Hauser SL, Longo DL, Jameson JL, Loscaldo J, eds. Harrison's principles of internal medicine. 21st Ed. New York: McGraw-Hill, 2022. Pg.7481 to 7630.
 - 5. Professor Zach Murphy, ninja nerd lectures, https://youtu.be/pUxH_oVRcm4.