Utjecaj indeksa tjelesne mase na velike neželjene kardijalne događaje nakon premoštenja koronarnih arterija

Impact of body mass index on major adverse cardiac events after coronary artery bypass graft surgery

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Uvod: Cilj premoštenja koronarnih arterija (PKA) je smanjenje smrtnosti i uklanjanje ili ublažavanje simptoma koronarne bolesti srca. Pet godina nakon PKA 75% bolesnika nije imalo ishemijske događaje[1,2]. Pretilost je čimbenik rizika za morbiditet i mortalitet nakon PKA[3]. Cilj istraživanja je procijeniti relativni utjecaj indeksa tjelesne mase (ITM) na velike neželjene kardijalne događaje nakon PKA u dugoročnom praćenju.

Pacijenti i metode: U studiju je uključeno 100 uzastopnih bolesnika koji su podvrgnuti PKA, u dobi 36-79 godina, srednja dob 61,3 godine. Vrijeme praćenja bolesnika bilo je od 2 do 29 godina, prosječno 8,6 godina. ITM izračunat je iz formule; tjelesna težina (kg) / visina u (m^2). Temeljem ITM bolesnici su podijeljeni u dvije skupine: 1. skupina s ITM < 25kg/m^2 , 2. skupina s ITM ≥ 25kg/m^2. Veliki neželjeni kardijalni događaji uključuju smrtnost zbog kardijalnih uzroka, infarkt miokarda, nestabilnu angina pectoris, ponovljenu revaskularizaciju miokarda, zatajivanje srca, moždani udar ili tranzitorni ishemijski napadaj (TIA) i smrtnost zbog svih uzroka.

Rezultati: Učestalost arterijske hipertenzije, šećerne bolesti i hiperlipidemije značajno je veća u skupini s prekomjernom tjelesnom težinom (82,9 %, 34,1 % i 87,5 %) nego u skupini s normalnom tjelesnim težinom (75 %, 25 % i 75 %). Veći broj pušača je u skupini s normalnom tjelesnom težinom (66,7 %) nego u skupini s prekomjernom tjelesnom težinom (51,1 %). Tijekom praćenja umrlo je 12 bolesnika (7 kardijalni uzrok i 5 ostali uzroci smrti), akutni infarkt miokarda imalo je 11 bolesnika. Od ovih 23 bolesnika samo su dva bolesnika imala ITM manji od 25 kg/m^2. Ponovljena revaskularizacija učinjena je u 12 bolesnika, zbog moždanog udara ili TIA liječeno je 7 bolesnika. Zbog nestabilne angine pektoris liječeno je 12 bolesnika, a zbog zatajivanja srca 8 bolesnika. Smrtnost zbog svih uzroka tijekom praćenja bila je 12 %.

Zaključak: Rezultati istraživanja pokazuju veću učestalost klasičnih čimbenika rizika za koronarnu bolest srca u skupini bolesnika s prekomjernom tjelesnom težinom. Indeks tjelesne mase veći od 25kg/m^2 može biti prediktor velikih neželjenih kardijalnih događaja u bolesnika nakon PKA u dugoročnom praćenju.

Introduction: The main goal of the coronary artery bypass graft (CABG) surgery is to reduce the mortality and to reduce or to prevent symptoms of coronary artery disease. Five years after coronary bypass graft surgery 75% of patients didn't have ischemic events[1,2]. Obesity is the risk factor for morbidity and mortality after coronary artery bypass graft surgery[3]. The main goal of the research is to asses relative impact of body mass index (BMI) on major adverse cardiac events (MACE) after CABG in the long term follow up.

Patients and Methods: In study are involved 100 consecutive patients after CABG surgery at the age of 36-79, average 61.3. Follow up time is about 2 to 29 years, average 8.6 years. BMI is calculated from the formula; body weight (kg) / body height (m^2). Based on BMI the patients are divided in two groups; 1. Group with BMI <25 kg/m^2; 2. Group with BMI ≥25 kg/m^2. MACE include mortality due to cardiac cause, myocardial infarction, unstable angina pectoris, repeated myocardial revascularization, congestive heart failure, stoke, transient ischemic attack (TIA) and death due to all other causes.

Results: Frequency of arterial hypertension, diabetes, dyslipidemia is higher in a group of patients with excessive weight (82.9%, 34.1%, 87.5%), than in patients with normal weight (75%, 25%, 75%). The majority of smokers are in the group with normal body mass index (51.5%) then in group with excess body mass index (51.5%). During the follow up; 12 patients died (7 of them due to cardiac cause and 5 due to other cause of death), acute myocardial infarction had 11 patients. Of all the 23 patients, only two of them had BMI less than 25kg/m^2. Repeated cardiac revascularization had been done in 12 patients, and 7 patients had stroke or TIA. Due to unstable angina pectoris 12 patients were treated, and 8 patients were treated from heart failure. Death due to all other causes during the follow up was in 12 % of patients.

Conclusion: The results of the research show greater frequency of classic risk factors of coronary artery disease in group of patients with higher BMI. Body mass index greater than 25 kg/m^2 can be predictor of the MACE after the CABG surgery in the long term follow-up.

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