

## عنوان مقاله:

Off-Pump Versus On-Pump Coronary Artery Bypass Graft Surgery, prospective cohort study

## محل انتشار:

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## خلاصه مقاله:

Introduction: Coronary artery bypass grafting is a surgical operation that bypasses atherosclerotic coronary vessels and restores blood flow to the ischemic zone of hearts. And two different conventional methods are ON-pump CABG, and Off-pump CABG. Altogether, the efficacy and safety of these two types of surgical procedures are still under debate. In this study, we aim to compare the efficacy, safety, and cost-effectiveness of these two different methods in admitted patients to Imam Reza Hospital in Mashhad in Iran during 2006 to 2016. Materials and Method: In this prospective cohort study, 533 patients who underwent CABG in Imam Reza hospital in Mashhad during 2006 to 2016 were identified. The data was collected using hospital records including demographic data, chief complaint, history of previous disease, ejection fraction, number of graft, blood transfusion, time of anesthesia, time of surgery, days of hospitalization, days of ICU stay, needs for reoperation, post-operative complication, expenses of hospitalization. Results: Of 533 patients were 347 patients of whom male. The mean age was 59.53±10.21 and the mean BMI was 26.38±5.4. The most common chief complaint of the patients was chest pain. 38 patients of 533 cases underwent onpump surgery and 495 underwent off-pump technique. There were no significant differences for age, and gender. The prevalence of HTN, diabetes, MI, and hyperlipidemia had no differences among two groups. Renal failure was more common in on-pump group; whereas, pulmonary disease was more common in off-pump group. On-pump surgery

required significantly longer hospitalization and ICU care. Also needs for reoperation was more common among onpump surgery. Total expenses were significantly higher in on-pump group.10.5% of those who underwent on-pump surgery died after surgery. This rate was only 3.1% among off-pump group. Conclusion: In this study we showed that, the patients who underwent on-pump surgery, required longer hospitalization, and ICU care. Total expenses were significantly higher in on-pump group. In addition, the mortality rate of on-pump group was significantly higher than the off-pump group. Also needs for reoperation was more common among on-pump surgery. Altogether, it seems that offpump surgery is safer with low expenses than on-pump CABG

کلمات کلیدی:

Coronary Artery Bypass, Grafting Cardiopulmonary Bypass, Off- Pump Mortality Rate

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