

Summary

Myocardial infarction is the leading cause of death in most of the industrialized countries.

Manual aspiration catheters are new devices that are used during primary PCI aiming to improve myocardial perfusion by reducing the thrombus burden in the infarct related artery.

This study aimed to define the benefits of thrombus aspiration by EXPORT suction catheter during primary PCI for acute STEMI in terms of angiographic results (TIMI flow, MBG) and ST resolution after PCI, morbidity and mortality within 30 days after PCI.

This study was carried on 30 patients who presented with acute STEMI within 12 hours of chest pain to the emergency department of “Prince Sultan Cardiac Center, Al-Hassa, KSA” during the period from April 2010 to October 2010.

Patients were divided into two groups; fifteen patients were subjected to thrombectomy device (EXPORT suction catheter) before proceeding to the primary PCI and this group was considered as group (1), and the remaining 15 patients were subjected to conventional primary PCI and this group was considered as group (2).

The use of EXPORT suction catheter during primary PCI for acute STEMI is feasible in the majority of the cases and it results in significant improvement in myocardial perfusion as evidenced by better myocardial blush grade (MBG) as well as better TIMI flow after PCI.

There was better ST resolution 90 minutes after PCI, less incidence of persistent ST deviation with the use of Export suction catheter.

The use of Export suction catheter reduced the need for balloon predilatation before stenting.

The use of Export suction catheter resulted in improvement of the left ventricular ejection fraction.

But, it did not show difference in morbidity or mortality within 30 days after PCI.