Research Article

SAFETY AND EFFICACY OF EPTIFIBATIDE AS ANTITHROMBOTIC AGENT IN PHARMACOINVASIVE THERAPY IN A TERTIARY CARE HOSPITAL

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A R T I C L E   I N F O

A B S T R A C T

Introduction:- Primary PCI is the preferred method of revascularization in STEMI if It can be performed in time. However in our country negligible percent can achieve the scheduled door to balloon time of <90minutes. Use of gp2b3a inhibitor as antithrombotic agent is class 1 indication in primary PCI. But their use in pharmaco-invasive arm is shaded by increase risk of bleeding. Abciximab is effective but very costly. In our country, considering the socio-economic status of the population a cheap though effective antithrombotic agent is required for successful procedure.

Aims and objectives:- To determine the safety and efficacy of pharmaco-invasive reperfusion strategy utilising full dose of thrombolytics combined with PCI and intra and postoperative eptifibatide use as sole antithrombotic agent in STEMI, presenting in our hospital or referred from outside.

Materials and methods:- Prospective data obtained from patient attending in our hospital with AMI thrombolysed outside or in our hospital within the schedule time period of 24 hrs of acute event. Streptokinase was used as thrombolytic agent. They all received the loading dose of Aspirin 325mg, either clopidogrel 600mg/Prasugrel 60mg, no heparin, intra or post procedural bolus and maintenance dose of eptifibatide according to weight adjusted dose. Wide range of age from 32-83 yes, both high and low risk STEMI, both diabetic and non diabetic patient included in the study. All of the patients present within two to twelve hrs of AMI. Procedures were done at mean six hrs of thrombolysis. SCD due to other complication within one month rescue PCI.

Results and observations:- 62 patients were studied from month May 2017 till date,49 were male and 13 were female. Majority were in 50-59 yrs age group in both male and female (25 and 7 respectively).All patients received 1st bolus eptifibatide after PTCA wire crossed the lesion. 7 patients had no reflow and among them 3 had TIMI 2 flow at the post procedure .Post procedure 3(4.8%) had minor bleed and 1(1.6%) had major bleed requiring blood transfusion.2(3.2%) patients had subacute stent thrombosis who died during hospital stay. No Stroke, Procedural AMI was reported.

Conclusion:- There were no excess bleeding, ischemic complications or mortality in this group although heparin was not used. Thus it can be concluded that use of eptifibatide as sole antithrombotic agent in patient undergoing pharmacoinvasive therapy is safe and effective.

INTRODUCTION

Early reperfusion is the backbone of STEMI care management. Indeed Indian consensus documents on STEMI care recommends swift initiation of reperfusion either with thrombolytic or primary PCI. Primary PCI is the most effective reperfusion therapy if it can be performed in a time manner. However in India it is accessible to less than 10% of STEMI patients. It is not only related to places but also in regions where cardiac catheterization laboratories are available.

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Various factors leads to delay in institution of primary PCI of which patient delay and health care system delay are important cause. Patient delay may be due to lack of Typical symptoms, awareness, ignorance, health care related delay and also due to transport problem, traffic congestion, lack of PCI capable hospital 24×7 health care team, and non availability of PCI capable hospital. Pharmacoinvasive approach involves initially administering fibrinolytic agent and then systemically Performing an angiography within 2-24 hrsafter the start of fibrinolytic therapy regardless of whether fibrinolysis was successful or not. Study reports shows that early fibrinolysis before PCI compared to standard therapy resulted in nearly

50% reduction in recurrent MI and Ischemia that was statistically highly significant with no substantial increase in Bleeding. In India where socio-economic status is poor cheap though effective emergency medicines are important tools for saving life. In our study we routinely use 1st generation fibrinolytic Streptokinase as Thrombolytic and cost effective Gp2b3a Inhibitor Eptifibatide as antithrombotic agent.

Aims and objectives

To determine the safety and efficacy of pharmaco-invasive reperfusion strategy utilising full dose of thrombolytic combined with PCI and intra, Postoperative eptifibatide use as sole antithrombotic agent in STEMI.

MATERIALS AND METHODS

Prospective data obtained from patients attending in our hospital with AMI, Thrombolyed outside or in our hospital within the scheduled time period of 24hrs of acute event. Streptokinase was used as sole thrombolytic agent. All they received 325 mg Aspirin, Clopidogrel 300mg/Prasugrel 60mg/or Ticagrelor 180 mg as loading dose. No patient received heparin as routine. Bolus and maintenance dose of Eptifibatide (dose adjusted) were given to all patients during/post procedure PCI.Wide range of age from 32-83 yrs. both male and female, high and low risk, diabetic and nondiabetic population were included. All the patients presented within 2-12 hrs of AMI with mean 7 hrs. Procedure was done at mean Six hours of thrombolysis. End point events monitored were Stroke, Major bleeding reinfarction, Stent thrombosis, SCD Due to other complication within one month of rescue PCI.

RESULTS

62 patients were included in our study. 49 patients were male, 13 patients were female. Wide range of age from 32-83yrs was included. Majority of population were 50-59 yrs age with mean age 53 yrs.62% of population were diabetic detected either early or during Index Index hospitalisation. All included patient had no history of prior revascularization.All patients received 1st bolus dose of Eptifibatide after the wire crossed the lesion. One we consider the presentation of ACS at hospital, out of 62 patients 61 had chest pain, 37 had dyspnea, 44 had diaphoresis, and 7 had history of syncope during Index event.

DISCUSSION

Pharmacoinvasive strategy is relatively new in interventional Cardiology. In India where high population Burden, high incidence of major events with relatively scarce PCI capable hospital. This kind of measures are important not only rescue life but an effective reperfusion protocol. Money is also important in Indian health care scenario. In our study we routine use a relatively cheap Gp2b3a inhibitor eptifibatide instead of Abciximab .Streptokinase used as thrombolytic agent which is cheapest one among the thrombolytics. In this study we concluded that both agents are safe and effective pharmacologic agent compared to conventional agent in pharmacoinvasive therapy. In previous multivariable literature it was found that clinical outcome was comparable to primary PCI strategy with excess bleeding risk. But in our study we found that there was no excess major bleeding but little increase in minor Bleeding. In India where there is every chance of resources emergence of cost effective medicines and

alternate protocol to Primary PCI is a major savings to Indian people. In our study mortality out come was comparable to primary PCI. Major CV outcome was comparable to primary PCI without significant increase risk of Bleeding. Anyway the thrombolytic Streptokinase was cost effective and easily available in remote health care facility areas. So availability and cost both are plus point to use of Streptokinase. In majority of previous study Abciximab was used during PCI. Abciximab is costly. We did not routinely use heparin and the result was not against our policy.

CONCLUSION

Pharmacoinvasive Therapy is safe and effective alternative to primary PCI.

Streptokinase and Eptifibatide is very good and effective primary pharmacological agent in This form of therapy.

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