CRT-15

Outcomes In Patients Undergoing Rural Interhospital Transfer Of ST Elevation Myocardial Infarction For Percutaneous Coronary Intervention

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Background: Percutaneous coronary intervention (PCI) is superior to fibrinolytic therapy (FT) in patients with ST elevation myocardial infarction (STEMI). However, treatment delays in patients with STEMI presenting at rural hospitals that are transferred for PCI may result in longer door to balloon time and lose the advantage of this approach over FT.

Methods: We conducted a retrospective study of all patients presenting with STEMI and undergoing PCI (primary, rescue and routine) at our center from January 2003 through May 2010. These patients were classified into two groups: Group 1 consisted of patients presenting at rural hospitals that were transferred to our center for PCI and group 2 consisted of patients directly presenting to our center. The “total” door to balloon time (TDBT) was calculated in minutes from the first documented time of initiation of symptoms of the index event until the balloon inflation of the culprit artery. The primary endpoint was major adverse cardiac events (MACE) which was a composite of one year incidence of all cause mortality, recurrent acute coronary syndrome (RACS), cerebrovascular accident (CVA)/transient ischemic attack (TIA). Secondary endpoints were individual components of MACE including all cause mortality, RACS, CVA/TIA and in-hospital major bleeding. We conducted multivariate regression analysis to evaluate the role of major demographic and clinical characteristics in predicting MACE.

Results: A total of 410 patients (278 in group 1 and 132 in group 2) qualified for the study. There were no significant differences in the major demographic and clinical characteristics between the two groups. TDBT was 177 ± 75 minutes in group 1 and 97 ± 64 minutes in group 2 (p = 0.001). Primary endpoint occurred in 20 % of patients in group 1 and 12 % of patients in group 2 (p = 0.048). However, none of the secondary endpoints were significantly different between the two groups. By multivariate regression analysis, only rural transfer status and TDBT predicted MACE.

Conclusion: Rural Interhospital transfer of patients presenting with STEMI is associated with longer TDBT and higher incidence of MACE. Further research is needed to realize the full benefit of PCI in these patients.

CRT-16

Correlation Between Myocardial Perfusion Grade And ST Segment Among Patients With Normal Coronary Epicardial Flow After Primary Angioplasty In Acute Myocardial Infarction

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Background: After Primary Angioplasty in acute myocardial infarction (PAAMI), the TIMI of myocardial perfusion grade (TMPG) “myocardial blush”, is a useful but subjective method of microcirculation analysis, with prognostic implications. On the other hand, the addition of complete ST segment resolution (CSTR) >70% is a hard and more objective marker, providing information about tissue level perfusion. We analyzed if exist correlation between TMPG and CSTR in patients with normal epicardial flow TIMI 3.

Material and Methods: From January 2007 to September 2012, we analyzed retrospectively the ECG (at admission and after 30 minutes from angioplasty) and the TMPG from 406 patients (4 centers from Argentina), with PAAMI <21hs, all these patients with normal epicardial flow TIMI 3.The admission Killip and Kimball was A=86%, B=11% and D=3%. We evaluated the microcirculation grades like TMPG 3 normal entry and exit of dye from the microvasculature, TMPG 2 delayed entry and exit of dye from the microvasculature, TMPG 1 Dye slowly enters but fails to exit the microvasculature and TMPG 0 failure of dye to enter the microvasculature. We defined: open microcirculation if TMPG was 2/3 and closed if TMPG was 0/1 at the final result of PAAMI. We considered CSTR, like >70% reduction of egg from angioplasty, from the initial value at admission. We had 84 patients with mechanical Thrombus Aspiration, 40 cases in TIMPG/0 group and 44 in TIMPG/2/3.

Results: 280/406 patients (68,9%) had CSTR at 30 minutes. Complete CSTR was more significant in patients with open TMPG 2/3 (240/302, 79,47%) than patients with closed TMPG 0/1 (40/104, 38,4%), in spite of normal coronary epicardial flow; P=0.004.

Conclusion: Exist direct correlation between CSTR and opened TMPG 2/3. Both methods were useful in the analysis of microcirculation.

Timi Flow and ST segment after PAAMI, using Fisher’s test. P=0.0004

<table>
<thead>
<tr>
<th>n=406</th>
<th>(TMPG/2/3) 302</th>
<th>(TMPG/0/1) 104</th>
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<td>CSTR 280</td>
<td>240 (79,4%)</td>
<td>40 (38,4%)</td>
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CRT-17

Correlation Between Myocardial Perfusion Grade And Angiographic Thrombus Among Patients With Normal Epicardial Flow After Primary Angioplasty, In Acute Myocardial Infarction

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Background: After Primary Angioplasty in acute myocardial infarction (PAAMI), the TIMI of myocardial perfusion grade (TMPG) “myocardial blush”, is a useful method of microcirculation analysis, with prognostic implications. On the other hand, the presence of angiographic thrombus (AT) generates distal embolism, affecting the microcirculation. We analyzed if AT can predict bad myocardial blush after the angioplasty.

Material and Methods: From January 2007 to September 2012 we studied retrospectively coronary angiograms and the TMPG of 406 patients from 4 centers of Argentina, with PAAMI <12 hours, all these patients with TIMI 3 after angioplasty. The average age was 58 ± 14 years old. The admission Killip and Kimball was A=86%, B=11% and D=3%. We evaluated the microcirculation grades like TMPG 3 normal entry and exit of dye from the microvasculature, TMPG 2 delayed entry and exit of dye from the microvasculature, TMPG 1 Dye slowly enters but fails to exit the microvasculature and TMPG 0 failure of dye to enter the microvasculature. We considered (open) circulation if TMPG was 2/3 and closed if TMPG was 0/1, at the final result of PAAMI. We defined AT like intraluminal globular filling defect in multiple angiographic views. We had 84 patients with mechanical thrombus aspiration, 40 cases in TIMPG/01 group and 44 in TIMPG2/3.

Results: The incidence of AT before PAAMI was 360/406 patients (88,66%), 98/104 patients had AT before Angioplasty + TMPG 0/1 after PAAMI (94,23%) Vs 262/302 patients with AT + TMPG 2/3, (86,75%); P=0,62.

Conclusions: The presence of angiographic thrombus didn’t predict bad TIMI Flow, obtaining a trivial trend toward more incidence of closed microcirculation.

*DMISSING OR BAD TABLE SPECIFICATION* [01F24CA0-4CB4-45BC-8676-70F7034F8622]