Differed stenting in STEMI:05 years clinical outcomes

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Primary angioplasty is the gold standard in the management of STEMI in the acute phase. However, due to the thrombotic burden this procedure can cause serious complications in cath-lab such as slow flow, no reflow and distal embolizations which can compromise myocardial reperfusion and microcirculation.

In an attempt to reduce these complications, the differed stenting strategy was adopted by our center, with the primary objective: Assessing whether it is safe to postpone the implantation of a stent to an average time of 05 days (Occurrence of peri -procedural) and as a secondary objective: Occurrence of MACE after a follow-up of 05 years.

Patients and Methods: Descriptive retrospective mono-centric study of 51 patients over 18 years of age (men: 90%; average age: 52 years; 28% of diabetics, 37% of hypertensives, 1% of dyslipidemias, 56 % of smoking) received in the cardiology and internal medicine department of the Blida University Hospital (during the period from February 01, 2014 to December 31, 2014 with a follow-up of 05 years) for STEMI of less than 12 hours In whom coronary angiography was performed and a deferred stenting approach was adopted

Results: The main criterion leading to a differed stenting strategy was the presence of a significant thrombotic load leading to extensive use of thrombo-aspiration (37%) and balloon dilation (23%) to restore an acceptable TIMI flow. followed by the administration of AntiGpIIbIIIa (61%).

After an average angiographic control period of 05 days, out of the 51 patients: there were no inter-procedural.

During the coronary angiography we did not find any deterioration of the flow or re-occlusion of the culprit artery. At the end of the procedure, the choice of revascularization technique depended on the degree of residual stenosis and the number of trunk affected: that said 45% were treated medically due to the absence of angiographically significant coronary lesion; 44% were stented and 11% were assigned to aorto-coronary bypass surgery.

After a median follow-up of 05 years the rate of occurrence of MACE was 04% (re-hospitalization for NSTEMI) nevertheless 19% had an anginal recurrence of which half belonged to the group where the medical treatment was indicated and in which a test of ischemia returned negative.

Conclusion: The data from our study confirms the feasibility and safety of the diferred stenting strategy in STEMI, particularly on very thrombotic lesions, in addition to a reduction in peri-procedural events, this strategy can offer a therapeutic alternative to treatment. medical alone or surgical revascularization.

The 5-year decline has demonstrated the sustainability of these results, however other studies of wider spectrum must be undertaken to validate this strategy

In the DESERT (International Drug-Eluting Stent Event Registry of Thrombosis), a retrospective, case-control registry, 492 cases of late/very late definite DES thrombosis from 21 international sites were matched in a 1:1 fashion with controls without stent thrombosis (ST). Controls were matched by 2 criteria: same enrolling institution and initial DES implantation date. Baseline and procedural variables were collected, and clinical follow-up was obtained for patients with ST as long as 1 year after the event. Offline quantitative coronary angiography was performed for a subset of 378 case-control pairs.

AC Sacute coronary syndromeBMSbare-metal stent(s)DAPTdual antiplatelet therapyDESdrug-eluting stent(s)IQRinterquartile rangeLADleft anterior descendingMImyocardial infarctionPCIpercutaneous coronary interventionQCAquantitative coronary angiographySTstent thrombosisSTEMIST-elevation myocardial infarctionSVGsaphenous vein graftTIMIThrombolysis In Myocardial Infarction. Since the introduction of bare metal stents (BMS), stent thrombosis (ST) has been a major concern due to significant morbidity and mortality. The widespread adoption of dual-antiplatelet therapy (DAPT) with aspirin and a P2Y12 receptor antagonist and improved percutaneous coronary intervention (PCI) techniques have decreased the risk of thrombosis to an acceptable level (<1%), although the incidence of ST remained higher when stents were placed in more complex subjects and lesions. See you. Drug-eluting stents (DES) had the promise to mitigate, if not abolish, restenosis and the need for repetitive revascularization procedures Nevertheless, reports of late ST events (over 30 days) with DES, including data showing a constant ST hazard of 0.6 percent / year after DES implantation, have resulted in continued concerns about the safety of DES. Although the phenomenon of subacute ST has been well described in the BMS era and still constitutes the majority of ST events with DES, the predictors and outcomes of late ST and very late ST with DES have been less well understood, in part because of the low frequency of these events. Previous reports have been limited to small cohorts or case series. In addition, the optimal duration of DAPT for DES implant patients and the relationship between the duration of DAPT and the occurrence of late / very late DES thrombosis remains unclear. The purpose of this prospective case-control study was to identify clinical, procedural, and angiographical correlates of late / very late DES thrombosis, as well as to determine the clinical outcomes of these events. The DESERT (International Drug-Eluting Stent Event Registry of Thrombosis) was a retrospectively designed, multicenter, observational, case-control study with an original objective of enrolling as many as 500 patients with definite late / very late DES thrombosis as well as 500 patients with matched control Patients with a U.S. ST definite Food and Drug Administration–approved DES after April 2003 were included in the study. Included patients were 18 years of age and older and presented with late/very late definite ST (per the Academic Research Consortium definition) confirmed by angiography or autopsy. Sites reported Consecutive cases of late / very late definite ST patients, to the best of their knowledge. A site was included if it 1) had an internal systematic reporting mechanism to identify stent thrombosis patients was able to develop queries within its billing system to identify readmission for ST presentations. Limited matching was used: 492 cases of late/very late definite DES thrombosis from 21 international sites were matched in a 1:1 fashion with controls without ST. Controls were matched according to 2 criteria: same enrolling institution and date of initial DES implantation. Control patients were eligible if they had no known history of ST until the time of matching.