

Unprotected left main angioplasty in the elderly at a high flow catheter center without an on-site surgical facility: immediate and intermediate results - the old placet registry

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AUTHORS' CONTRIBUTION: (A) Study Design · (B) Data Collection · (C) Statistical Analysis · (D) Data Interpretation · (E) Manuscript Preparation · (F) Literature Search · (G) No Fund Collection

ABSTRACT

Our objective was to evaluate the clinical feasibility and efficacy of unprotected left primary percutaneous coronary intervention (ULM) in patients over 75 years of age over a period of 6 years and at follow-up. A 2-year follow-up demonstrates that PCI is a viable revascularization strategy even in the absence of local cardiovascular support. However, the future of these high-risk patients remains hampered by reasonable in-hospital mortality. Older patients had a higher mortality at follow-up (10.0 vs 0.8%, $P = 0.014$), while younger patients had a lower mortality after the acute phase vs. 8.4%, $P = 0.15$). The incidence of unprotected left coronary artery disease (ULM) during diagnostic coronary angiography varies from 4 to 7% and increases with age. Even recent recommendations consider coronary artery bypass grafting (CABG) as the preferred revascularization strategy for ULM, especially when distal bifurcation is involved and when distal bifurcation is involved. Have disseminated multivessel coronary artery disease. However, the clinical profile and especially age can significantly increase the risk of surgery and thus, despite the encouraging results obtained in elective patients with arterial disease Coronary ULM treated with percutaneous coronary intervention (PCI) and drug-eluting stents (DES), the outcome in the elderly with ULM (often excluded by randomized trials) is unclear.

Keywords: Aged patients; Drug-eluting stent; Intervention; Left main coronary artery; Major adverse cardiac events

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Word count: 1502 **Tables:** 00 **Figures:** 00 **References:** 10

Received: 3.04.2023, Manuscript No. IPJUS-23-13581; **Editor assigned:** 05.04.2023, PreQC No. P-13581; **Reviewed:** 19.04.2023, QC No. Q-13581; **Revised:** 21.04.2023, Manuscript No. R-13581; **Published:** 28.04.2023

INTRODUCTION

In this study, we specifically evaluated the feasibility and effectiveness of percutaneous ULM treatment of coronary artery disease in the elderly (over 75 years of age) in a group of patients referred to a medical center. There is no in situ cardiothoracic surgical management. Competition for acute coronary insufficiency. Syndrome (SCA) [1]. This is a spontaneous monocentric register; catheterization laboratory and general characteristics described elsewhere [2]. We retrospectively enrolled all patients with unprotected left coronary artery disease in acute coronary syndromes (ACS) competition treated with percutaneous angioplasty at our facility from January 2003 to January 2010; A dedicated database (Cardio planet, EBIT-AE, IT) was used to collect clinical and procedural data and the clinical event committee (F. Tommasino and A. Gambino) was used to evaluate the endpoint [3]. All angiograms were reviewed to assess primary ULM involvement and technical and procedural details. Due to the lack of on-site cardiothoracic surgery team in our facility, the decision to perform PCI instead of CABG depends primarily on the patient's hemodynamic stability, high surgical risk (eg. condition critical condition, EUROSCORE) and the technical feasibility of percutaneous surgery [4]. Procedure, therefore PCI was performed due to an unacceptable delay in accessing the nearest cardiac surgery department for emergency bypass surgery [5]. Patients undergoing elective revascularization were excluded from the study because they were discussed with their cardiac surgeon and, in the absence of clinical or technical contraindications, were treated with CABG. Cardiogenic shock was defined as a systolic blood pressure consistently below 90 mmHg [6]. Coronary flow was determined according to the degree of thrombolysis in myocardial infarction (TIMI). Procedure success was defined as <20% residual stenosis, TIMI 3 flow rate without patient death or target vascular failure (TVF) in the hospital. Significant non-ULM vessel disease defined as >50% stenosis. Cardiac death was defined as any death from cardiovascular causes, procedure-related death, and death of unknown cause [7]. Myocardial infarction (MI) was defined as any elevation of creatine kinase or its MB isoenzyme up to 3 times the upper limit of normal [8].

DISCUSSION

Targeted revascularization (TLR) is defined as any revascularization procedure performed for revascularization at the treated site of injury that is associated with clinical

evidence and/ or objectively of myocardial ischemia can cause [9]. The strategy of the procedure (balloon distension, stent selection, use of intra-aortic balloon pump, and anticoagulation or antiplatelet therapy) is determined by the practitioner [10]. Euroscore logistics was applied to assess the risk of death from surgery or percutaneous cardiology. The primary endpoint was end-of-hospital vascular failure (TVF) defined as cardiac death, end-point myocardial infarction, or clinically motivated target revascularization (TVR). Secondary endpoints were death from any cause during hospitalization and death from any cause after two years of follow-up and FVT after two years of response. All patients were discharged on dual antiplatelet therapy (aspirin and clopidogrel or ticlopidine) for 12 months, regardless of stent type selected. All surviving patients with no clinical contraindications were scheduled for follow-up angiography at six months. Two-year clinical follow-up data were obtained from an outpatient clinic visit or direct telephone contact. Due to the observable design of this registry, the approval of the ethics committee was withdrawn. All results are presented as mean \pm standard deviation (SD). Chi-squared and unpaired Student's t-test was used to compare ordinal and continuous variables, respectively. A value is considered to be statistically significant. 95% confidence intervals (CI) for proportions were calculated using Wilson's method. Independent predictors of hospital outcomes and long-term outcomes were analyzed using a Cox proportional hazard regression model. Results are reported as adjusted odds ratios (ORs) with relevant 95% confidence intervals (CIs). Two-sided value < 0.05 was established as the level of statistical significance for all tests. Logistic regression analysis identified variables that were significantly and independently associated with FVT in the hospital. Survival curves were constructed using the Kaplan-Meier method to analyze target lesion freedom failure (TLF); Statistical analyses were performed using SPSS-PASW 18.0 (IBM, Armonk, NY, USA) with the exception of survival curves generated using version 3.0.2 of the R program (R Core Team, 2013, 2013). <http://www.r-project.org/>.

CONCLUSION

During the observation period, we treated 200 patients with ULM; Baseline characteristics are shown in Table 1. The high-risk profile of this cohort included a diagnosis of acute MI in 34.5%, including 22% presenting with ST-segment elevation myocardial infarction (STEMI).), multivessel coronary artery disease (CAD) in 63.0%, severe ejection fraction (EF) impairment ($<35\%$) in 18.5%, and previous PCI in 19.5% represent the average Euro SCORE value is 8 (interregional range 4-13). Cardiogenic shock was defined as a systolic blood pressure consistently below

90 mmHg. Coronary flow was determined according to the degree of thrombolysis in myocardial infarction (TIMI). Procedure success was defined as $<20\%$ residual stenosis, TIMI 3 flow rate without patient death or target vascular failure (TVF) in the hospital. Significant non-ULM vessel disease defined as $>50\%$ stenosis. Cardiac death was defined as any death from cardiovascular causes, procedure-related death, and death of unknown cause. Myocardial infarction (MI) was defined as any elevation of creatine kinase or its MB isoenzyme up to 3 times the upper limit of normal. Targeted revascularization (TLR) is defined as any revascularization procedure performed for revascularization at the treated site of injury that is associated with clinical evidence and/ or objectively of myocardial ischemia can cause. The strategy of the procedure (balloon distension, stent selection, use of intra-aortic balloon pump, and anticoagulation or antiplatelet therapy) is determined by the practitioner. EUROSCORE logistics was applied to assess the risk of death from surgery or percutaneous cardiology. The primary endpoint was in-hospital vascular failure (TVF) defined as cardiac death, end-vessel myocardial infarction, or clinically defined target revascularization (TVR). Secondary endpoints were (1) death from any cause during hospitalization and (2) death from any cause after two years of follow-up and (3) FVT after two years of response. All patients were discharged on dual antiplatelet therapy (aspirin and clopidogrel or ticlopidine) for 12 months, regardless of stent type selected. All surviving patients with no clinical contraindications were scheduled for follow-up angiography at six months. Two-year clinical follow-up data were obtained from an outpatient clinic visit or direct telephone contact. Due to the observable design of this registry, the approval of the ethics committee was withdrawn. All results are presented as mean \pm standard deviation (SD). Chi-squared and unpaired Student's t-test was used to compare ordinal and continuous variables, respectively. A value is considered to be statistically significant. 95% confidence intervals (CI) for proportions were calculated using Wilson's method. Independent predictors of hospital outcomes and long-term outcomes were analyzed using a Cox proportional hazard regression model. Results are reported as adjusted odds ratios (ORs) with relevant 95% confidence intervals (CIs). Two-sided value < 0.05 was established as the level of statistical significance for all tests. Logistic regression analysis identified variables that were significantly and independently associated with FVT in the hospital. Survival curves were constructed using the Kaplan-Meier method to analyze target lesion freedom failure (TLF); Statistical analyses were performed using SPSS-PASW 18.0 (IBM, Armonk, NY, USA) with the exception of survival curves generated using version 3.0.2 of the R program (R Core Team, 2013, 2013). http://www.r-project.org.

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