Editorial

The Two Brazils and the Treatment of Acute Myocardial Infarction

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The establishment of effective treatment for acute myocardial infarction (AMI) was one of the most important medical achievements of the second half of the 20th century[1]. In-hospital mortality fell from an alarming rate of 30-40%, in the 50s and 60s[2], to less than 5%, in 2006[3], thanks to the introduction of several therapeutic strategies, among which we highlight the opening of cardiovascular intensive care units (ICU), the coronary units, and the introduction of chemical or percutaneous reperfusion therapy[1]. The article published in this volume of the *Archives*, however, shows that the benefits of modern treatment of AMI are not accessible to all Brazilians[4].

In this study of simple design and effective implementation, the authors observed a mortality rate of 19.5% in patients with AMI who were hospitalized in a public hospital in Feira de Santana, Bahia. This rate was four times higher than that found among those who were hospitalized in the three private hospitals in the same city (4.8%, p = 0001)[4]. The patients who were hospitalized in the public hospital were predominantly poor and illiterate, they took more time to get to the hospital and to be medicated, and evolved with greater severity, which resulted in a high frequency of patients in Killip class II or higher. The treatment was also radically different: while 94% of those seen in the private hospitals received treatment in the ICU, with the use of thrombolytics in 79% of them, only 8% of the public hospital patients were admitted to the ICU, and 21% of them were submitted to reperfusion therapy[4]. Beta blockers, independent predictors of prognosis in this sample, were more often used in private hospitals. In other words, the patients hospitalized in public hospitals, besides their disadvantaged socioeconomic and clinical conditions, did not formally receive the recommended treatment for AMI, and this apparently was a critical factor in the explanation of the high number of deaths.

These results are not entirely new, since previous studies suggested that the patients of the Unified Health System (SUS) have limited access to ICU for treatment of AMI and show increased mortality when compared to those of private hospitals. Thus, Evangelista et al[5], studying SUS patients diagnosed with AMI in the city of Belo Horizonte, in 2002-2003, found that only 33% had been admitted to ICUs during hospitalization. Additionally, hospitalization in a public hospital (in comparison to private hospitals accredited by SUS) was an independent factor for adverse prognosis[5].

One of the most conspicuous results of the study conducted by Ferreira et al[4] was the magnitude of the difference in mortality between private and public hospitals, which is directly linked to differences in the use of acknowledgedly effective measures for the treatment of myocardial infarction. The descriptions of the deaths documented at public hospitals reveal that many could have been avoided by continuous monitoring in the ICU: five of the 17 fatal cases in the public hospital occurred due to sudden death and ventricular arrhythmia. While only two patients in the group treated at private hospitals (3%) died from pump failure, 12 of the 87 deceased patients in public hospitals (14%) had this complication whose frequency could have been lowered by reperfusion therapy. As the authors point out, the main responsibility for the increased severity and lethality at public hospitals falls on the performance of the institution, as only 38% of the eligible patients that were seen within the appropriate window of time were treated with thrombolytics, a treatment that is ubiquitously available and funded by SUS.

This brutal inequality in the right of access to good quality health care shows that there still exist two different Brazils, one poor and backward, and the other wealthy and developed, as the French sociologist Jacques Lambert described more than half a century ago[6]. While the results of the treatment of myocardial infarction at private hospitals are comparable to those seen in the Global Registry of Acute Coronary Events (*GRACE) international registry*[3], the lethality of myocardial infarction at public hospitals is similar to that achieved before the introduction of ICU and thrombolysis[2].

The difference between the mortality of AMI patients treated at public and private hospitals is particularly large in Feira de Santana, greatly exceeding the figures of Brazil as a whole. Of the 56,275 patients hospitalized with AMI by the SUS in 2007, 45% were treated at public hospitals, with a mortality rate of 15.6%, while 55% were treated at private hospitals, with a mortality rate of 14.5% (p = 0, 0002)[7]. Among the 7,550 patients who were treated with primary angioplasty by SUS in 2007, the fatality rate is much lower: 7.2% in private hospitals and 7.8% in public hospitals (p = 0.37). Therefore, in Brazil as a whole, for public or private hospitals accredited by SUS, the difference in mortality between public and private hospitals is much lower than that observed in Feira de Santana. It is necessary to determine which local and regional factors explain this disparity in Feira de Santana, which, in spite of being a hub city of a macro-region of the health care system, with more than 2 million inhabitants, inexplicably has not

Key Words

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a SUS accredited high-complexity cardiovascular care unit. Therefore, the recommendations of the authors of the study are relevant - namely the appropriate organization of the regional health care system, on all pertinent levels, and the systematic monitoring, by administrators, of the results of hospital treatment of cardiovascular diseases.

The publication of these findings stresses the importance of the treatment of AMI at public hospitals, which might be considered a priority of the national health care system. A great number of deaths could be prevented with medications and procedures that are already available in the Unified Health System. International experiences in organizing health care for the treatment of acute myocardial infarction can be adapted to our reality, allowing a fast and safe routing of patients to centers that are capable of reperfusion[8]. To support this strategy, there is a structured system of pre-hospital care (SAMU) and hospital care (ICUs, Cardiovascular Care Units) already covering most of the country, though it needs improvement and investments. And hopefully, through the mobilization of medical-scientific societies and the actions of health care managers at different levels of the government, we could reduce the huge inequality in the treatment of myocardial infarction patients in our country, helping to build a more just and egalitarian Brazil.

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