The evidence-based medicine and coronariopathy

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In November, we had two important works presented that will change the course of the treatment of coronary artery disease. The presentation of the fifth follow-up year of SYNTAX study [1] and the results of the FREEDOM [2] demonstrated a clear advantage on the results of coronary artery bypass grafting (CABG) over percutaneous coronary intervention (PCI) with drug-eluting stents in triple vascular diabetic patients with trunk injuries of left main coronary artery.

In its fifth year, the SYNTAX shows that mortality from cardiac causes was 9% for PCI and 5.3% for CABG, myocardial infarction (MI) in 5 years: 3.8% for CABG and 9.7% for PCI. The need for another revascularization was 25.9% for PCI and 13.7% for CABG.

The FREEDOM, study sponsored by the stent manufacturing industry, also demonstrates a clear advantage of the results of CABG compared to PCI. The all-cause mortality in 5 years was 18.7% in the CABG and 26.6% in PCI ($P = 0.005$), AMI 6% for CABG and 13.9% for PCI ($P < 0.001$). However, patients undergoing CABG had more cerebrovascular accidents (5.2% versus 2.4%).

The evidence-based medicine will change the reality, with several medical and financial implications. Health plans and SUS (Unified Health System) will limit the indications of inappropriate practices, for their own survival. We, as doctors, have to specify the procedures well, avoiding unnecessary costs for payers, in order to achieve adequate remuneration.

The PCI solution seemed modern and suitable for coronary insufficiency. In 2007, the COURAGE study began to change that impression, demonstrating that clinical treatment is better than PCI for treatment of stable angina [3]. However, despite always hearing that the prosthesis would develop continually, after seeing the results of the FREEDOM and SYNTAX made us disbelievers. Some multinationals are discouraging their production or closing line of stents and devices due to the fear of legal issues and also a fall in the profitability of this market.

In the United States, some doctors are being prosecuted and jailed for indication of inadequate therapeutic procedures. Moreover, ethical issues should be raised. No procedure is risk-free, if the indication is not precise, certain patients will certainly perish or suffer serious complications, which is unacceptable.

We have observed speeches totally unfounded used in our day-to-day activities who have influenced on the indication of procedures, such as the culprit lesion. It is not easy to understand what a culprit lesion is; we know that there are patients with severe injuries in one, two or three major coronary arteries. The clinical presentation, characteristics and anatomy, besides the severity of coronary lesions, are the factors that determine the indication for revascularization procedures.

A very interesting article was published this year, about the real world in the United States for the treatment of coronary artery disease. The study shows that 91% of patients undergoing PCI had lesions in one or two vessels, without involvement of the proximal left anterior descending artery or were under clinical treatment which was considered insufficient [4].

A principle must exist even before angiography: a decision about the treatment should be discussed, with a clinical cardiologist, an interventionist and a surgeon [5]. This decision divided among the professionals who are involved in the treatment of coronary artery disease

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Abbreviations, acronyms and symbols	
CABG	Coronary Artery Bypass Grafting
COURAGE	Clinical Outcomes Utilizing Revascularization and Aggressive Drug Evaluation
FREEDOM	Future REvascularization Evaluation in patients with Diabetes mellitus: Optimal Management of multivessel disease
AMI	Acute Myocardial Infarction
PCI	Percutaneous Coronary Intervention
SUS	Unified Health System
SYNTAX	SYNergy between percutaneous coronary intervention with TAXus and cardiac surgery

prevents conflicts of interest and can provide the best treatment for the population.

The structuring cardiology and cardiovascular surgery services with well-equipped hospitals and adequate training of surgeons, intensivists, cardiologists and nursing is essential. We need to know our results and evaluate them using international risk criteria, offering excellent services to our patients.

We can no longer accept impressions, pressures from the industries or rhetoric as reasons to indicate any medical treatment. There is no other way unless the evidence-based medicine, with its best argument, the scientific truth.

REFERENCES

1. Mohr F, Redwood S, Venn G, Colombo A, Mack M, Kappetein P, et al. Final five-year follow-up of the syntax trial: optimal revascularization strategy in patients with three-vessel disease. J Am Coll Cardiol. 2012;60(17S). Doi:10.1016/j.jacc.2012.08.052

2. Farkouh ME, Domanski M, Sleep LA, Siami FS, Dangas G, Mack M, et al. Strategies for multivessel revascularization in patients with diabetes. N Engl J Med. 2012. DOI:10.1056/NEJMoa1211585.

3. Boden WE, O'Rourke RA, Teo KK, Hartigan PM, Maron DJ, Kostuk WJ, et al Optimal medical therapy with or without PCI for stable coronary disease. N Engl J Med. 2007;356(15):1503-16.

4. Hannan EL, Cozzens K, Samadashvili Z, Walford G, Jacobs AK, Holmes DR Jr, Stamato NJ, et al. Appropriateness of coronary revascularization for patients without acute coronary syndromes. J Am Coll Cardiol. 2012;59(21):1870-6.

5. Hlatky MA. Compelling evidence for coronary-bypass surgery in patients with diabetes. N Engl J Med. 2012. DOI: 10.1056/NEJMe1212278