Letters to the Editor

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Relationship between pre-extubation positive end-expiratory pressure and oxygenation after coronary artery bypass grafting

At least one methodological error can be found in most randomized clinical trials that have been published in scientific journals; that is, some authors make such error compromising the reliability of the entire study. Some studies not even show the data in a systematic way; in consequence, even the best reviewers are not able to certify the results[1].

To provide a more reliable and easily certified content by the reviewers, a selected group of researchers, methodologists, statisticians and scientific journal editors have met to create a set of guidelines in a Checklist format[2,3].

"Consolidated Standards for Reporting Trials" was the generic name given for such guidelines or CONSORT Statement as it is known. In 1996[4], the first version was published, under some changes until 2010[2]; remaining this as the current version.

This set of rules was initially designed to guide randomized clinical trials; being inappropriate for surgical work, in which there is greater difficulty in applying the blind condition for patients and evaluators to minimize either variations in surgical techniques as differences on the surgeons' experience who perform these procedures[5]. For this purpose, it was published an extension of the CONSORT Statement in 2008 that provided specific recommendations for reporting randomized trials for non-pharmacological treatment (CONSORT-NPT)[6,7].

For these non-pharmacological work, there are specific instructions for each section of the paper; such as the Title with the word "randomized", Abstract with the blind condition of the study, Method calculating the minimum number of patients to be included in each group, flow-chart, among others. A full description of such rules can be found in Boutron et al.[6] work.

The work entitled "Relationship between pre-extubation positive end-expiratory pressure and oxygenation after coronary artery bypass grafting" of Borges et al.[8] published in this issue of the Brazilian Journal of Cardiovascular Surgery includes some of these criteria. At first, the authors define the study as randomized in the Abstract; the Methodology shows clear inclusion and exclusion criteria presented in text format, detailed description of the Methods to be applied to patients according to their groups, detailed statistics and, in the Results, graphical flow-chart type of the number of patients in each study phase.

We congratulate the authors for the effort of reporting such results obeying rules that help ensure a high standard of reliability in their study. Nevertheless, we should draw attention that there are several items of CONSORT Statement that have been omitted, such as calculating the number of patients in each group; the kind of randomization method that was chosen; the critical analysis of the external validity of the work as well as the discussion of the study limitations. These observations are consistent with Hopewell et al.[9] findings since they once have reported the conclusion in scientific magazines, CONSORT Statement is included for instructions to authors, there are more items of the Checklist in each clinical trial than in those in which this method is not mentioned.

Randomized clinical trials are reliable sources of scientific information; however, the use of inappropriate methodology can lead to false conclusions, undermining the reliability of the study. Thus, the implementation of this methodology helps editors to assess trial quality and assures readers the reliability of conclusions reported at the end of each paper. It is our role, as reviewers and editors of the Brazilian Journal of Cardiovascular Surgery, to encourage authors to use the CONSORT Statement not only to facilitate the certification process of the study's conclusions, but also in order to increase the quality of their own manuscripts.

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Key points of reducing neurologic complications in frozen elephant trunk technique

Dear editor,

We have read the interesting article entitled "Surgical treatment of complex aneurysms and thoracic aortic dissections with the Frozen Elephant Trunk technique" carefully[1]. The authors report their initial experience with this technique in 21 patients. First of all we appreciated the authors for this nice study. We would like to add some critics about this study.

There were some neurologic complications such as stroke (in one patient) and paraplegia (in two patients) in the study. Did the authors make any assessment about neurologic complications and their protection strategies? This is a very important point that should be detailed in paper. The exact mechanism of spinal cord injury in frozen elephant trunk interventions is not fully understood. Stent graft length, thromboembolism, and spinal cord ischemia time during total circulatory arrest are considered responsible factors[2]. Cerebrospinal fluid drainage is recommended for spinal cord protection strategy in current guideline (Class I, level of evidence B)[3]. Proximal aortic pressure maintenance and distal aortic perfusion are some of the other recommendations (Class IIa, level of evidence B). From this point, did the authors use any of suggested protection method?

On the other hand, neurologic complications can also be associated with distal length of endovascular prosthesis. In literature, 130 mm stent length is recommended for preventing paraplegia[2]. What was the distal length of prosthesis in these patients? Did authors make any assessment about distal position of stent in patients with neurologic complications?

The authors performed surgery in conventional operating room, without the use of scopes or guidewire. How can authors identify the true lumen? Wasn't it a risk? Can mentioned neurologic complications as well as renal failure be associated with possible selection of incorrect lumen? Why didn't authors use guidewire? Has the dissection also included both femoral arteries? Hybrid operating room doesn't exist in many centers, however, guidewire may be used to identify true lumen. In our center, we also don't have hybrid operating room, but we routinely use guidewire from intact femoral artery through descending thoracic aorta in retrograde way. Therefore we are able to see the true lumen directly.

In conclusion, we consider that, this single stage technique is so useful especially in complex aortic pathologies. Learning curve is a reality of these novel strategies of course, but morbidity rates can be decreased with appropriate surgical strategies and known guideline recommendations.

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