

# Prospective studies on decompressive craniotomy for malignant MCA infarctions in Brazil: ready for prime time

Estudos prospectivos sobre craniotomia descompressiva para infartos malignos da artéria cerebral média no Brasil: esse é o momento

Dear Editors,

We read with special interest the article *Decompressive craniotomy for the treatment of malignant infarction of the middle cerebral artery: mortality and outcome* by Bongiorni et al. in the last issue of *Arquivos de Neuro-Psiquiatria*<sup>1</sup>. The authors' contribution to decompressive craniotomy (DC) for malignant middle cerebral artery stroke is significant and should be congratulated; however, important questions arise in the minds of those engaged in current stroke practice. The following points should be considered, to clarify findings and strengthen current and future evidences.

The main concern about this study is that the functional outcome assessment was limited due to the selected methodology. Since the modified Rankin Scale is a categorical/ordinal scale, measures of central tendency are seldom informative. The authors are encouraged to present their data in stacked bar chart distributions – which would provide greater power to detect the treatment effect along the whole scale range and could suggest shifts of classes<sup>2</sup>. Also, a month is hardly enough to fully appraise the

functional benefits of DC. Therefore, they should also look for long-term assessments (i.e. 6–12 months) to facilitate comparisons with other published works.

Another puzzling question to the reader is: why so few patients in their institution received DC? The authors report on 20 procedures – which may be appropriate once local epidemiology is acknowledged. However, a quick inquiry in the TABNET database system disclosed that, from January 2008 to December 2014, a total of 3,753 acute stroke patients were admitted at that institution<sup>3</sup>. If those numbers hold true, they suggest that Brazilian patients might be less than half as likely to receive DC than their counterparts in the HeADDFIRST trial, a significant difference (eligibility rate 0.53% vs 1.35%; OR 0.39, 95%CI 0.23–0.64;  $p = 0.0002$ )<sup>4</sup>. Key to understanding this conundrum – and definitely more important than statistics – is why patients are being declined surgery. Only a dedicated prospective registry would disclose the reasons that are hampering many patients from benefiting from that well-established therapeutic option.

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## References

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