

# Computed tomography in traumatic brain injury

*Tomografia computadorizada no traumatismo cranioencefálico*

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Traumatic brain injury (TBI) is one of the leading causes of morbimortality in Brazil and worldwide. Considering that TBI is most frequently observed in the young adult age group, it presents considerable socio-economic impact on the economically active population. In spite of the developments in the diagnosis and treatment of TBI, the figures are still staggering, because of the scarcity of public policies aimed at reducing the incidence of accidents. In Rio de Janeiro, over the past two to three years, we have been observing the effects of the anti-alcohol abuse law. The results have been encouraging, demonstrating that sound public policies may bring about cultural changes with positive impact on the society as a whole.

Thus, the article by Morgado & Rossi<sup>(1)</sup> published in the previous issue of **Radiologia Brasileira** is very pertinent for demonstrating the figures resulting from TBI on our population. In the series of 102 patients, in spite of the fact that 82.4% of the cases presented mild TBI, tomographic findings were observed in approximately 80% of the patients. As previously reported in the literature, the most severe lesions were most frequently demonstrated in those patients presenting lower Glasgow coma scores at the moment of the examination. Additionally, the authors demonstrated a significant correlation between tomographic findings

and clinical variables such as the need for intubation and scores in the Glasgow coma scale.

Such results corroborate the literature<sup>(2,3)</sup>, demonstrating that cranial computed tomography is still the imaging method of choice for initial evaluation of patients with TBI. Considering its wide availability, low cost and fast images acquisition with satisfactory results, computed tomography is more advantageous than magnetic resonance imaging in these cases. However it is important to remind that in the case of patients with disparity between clinical and tomographic findings, magnetic resonance imaging plays a fundamental role in the clarification of the diagnosis, allowing, for example, a clearer demonstration of diffuse axonal injuries. Interestingly, in their national TBI series, Morgado & Rossi<sup>(1)</sup> characterized not only the tomographic findings, but also the relationship between such findings and TBI severity. With that in mind, it is again important to highlight that preventive public policies and public awareness are more important than developments in imaging techniques to achieve a positive impact on TBI figures.

## REFERENCES

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