



# Revista Colombiana de Anestesiología

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### Editorial

## Update on neuroanesthesia<sup>☆</sup>

## Actualización en neuroanestesia

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The brain is our most precious organ, the one that defines who we are. The importance is emphasized by the fact that in many countries the loss of vital brain functions is a definition of death. In daily anesthesia practice we manipulate brain function pharmacologically to produce anesthesia, often without giving specific thought to exactly what is happening to the brain and how it interacts with our drugs. Neuroanesthesia is a totally different circumstance. Here the brain is the organ operated on and an understanding of our actions in relation to the brain is crucial to a successful outcome. This special supplement to Revista Colombiana de Anestesiología provides the clinician, whether full time neuroanesthesiologist or occasional, with an update on important developments in the field. The aim was to have a series of relatively short, clinically relevant articles, to bring the practicing anesthesiologist up to date on developments.

This supplement informs the reader about changes that are taking place in neurosurgical practice but from the perspective of the anesthesiologist. Two areas where there has been the most growth are minimally invasive procedures and awake craniotomy. Awake craniotomy for tumors is challenging for the entire team but has gained popularity because the surgical outcomes are improved and newer anesthetic drugs have

allowed more and sicker patients to be deemed suitable.<sup>1</sup> Minimally invasive procedures such as transphenoidal surgery, deep brain stimulation, and intraventricular approaches have all benefited from improved technology. For the anesthesiologist they require a new understanding of the surgical approaches, needs and complications where the entire procedure is done with video or other imaging guidance.<sup>2</sup>

Over the past decade there has continued to be debate about the preferred anesthetic choice for patients undergoing neurosurgery. Similarly there has been an interest in finding an alternative to mannitol for brain relaxation and hypertonic saline, in various concentrations, has been evaluated. These debates and current opinions are well covered in two articles in this supplement.<sup>3,4</sup>

Traumatic head injury and cerebral aneurysms still remain relatively common occurrences in neuroanesthesia practice. Changes, albeit quite small, in clinical management have occurred and these are described in the review articles in the supplement.<sup>5,6</sup> Over the past 5 years there has been substantial interest in the use of cerebral oximetry to monitor the brain during many different types of surgery. The review in the supplement presents a pragmatic approach to thinking about this technology and how or when it may be useful.<sup>7</sup>

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Finally, it is important to remember that the brain is not an isolated organ but an integral part of the body and therefore neurological diseases may occur in conjunction with other normal or abnormal events. This supplement includes a case report on AVM rupture in pregnancy.

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### Conflicts of interest

The author consults for Masimo Inc.

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