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Brief Academy

Comment about "Randomized cross-over clinical trial comparing two pharmacokinetic models of propofol using entropy indices"☆

Comentario acerca de "Ensayo clínico cruzado y aleatorizado para comparar 2 modelos farmacocinéticos de propofol usando índices de entropía"

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The article, "Clinical cross-section, randomized clinical trial comparing two pharmacokinetic propofol models using entropy indexes",[1] published in the July–September 2016 journal, although an interesting and novel idea, it seems to me that a big mistake was made in the study's clinical design, that totally invalidates the results. The fact is that administering a bolus of propofol of 1 mg per kg of weight to place a laryngeal mask, after starting the infusion, makes unrealistic the target concentration assigned to the pump, since the infusion pump "ignores" the bolus administration. Under the TCI modality of the intelligent infusion pumps, the pumps themselves administer the bolus as needed; in other words, when the anesthetist starts the infusion or increases the target concentration[2]; if greater anesthetic depth was needed, the target concentration should have been increased, instead of manually administering a bolus. Moreover, since each patient acts as his/her own control, this same bolus results in differences in propofol concentrations at each time period, since during each patient's second phase, the bolus is not administered. Furthermore, although the statistical work done by the authors endorse that results are achieved with just 14 patients, the fact that the general anesthesia has been assisted with a peripheral nerve block, which may not generate the same results in all patients, represents a major bias of the study, as Dr. Rosero states in his editorial.[3]

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Conflicts of interest

The author has no conflicts of interest to disclose.

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