

## Can we Use the Cortínez's Model in Non-Obese Patients?

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**Rec date:** June 06, 2016; **Acc date:** June 15, 2016; **Pub date:** June 21, 2016

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Following the recent publication of our article in REDAR (Rev. Española de Anestesia y Reanimación) entitled "Comparison of the Cortínez and the Schnider models during effect-site TCI, at a target of 3 mcg/ml, in healthy volunteers." we want to emphasize that this is a clinical study, which demonstrates that Cortínez's Model can be used in non-obese patients. The reasons for this are: the Cortínez's data included normal-weight patients from Schnider's study; the model included weight allometric adjustments for Volumes and Clearance.

We decided to quantify the time of LOC and ROC, Bispectral Index, Blood Pressure, Heart Rate, Non-invasive Cardiac Output, and correlated with predicted concentration and mass of drug calculated by each Model in the same volunteer. The Non-invasive Cardiac Output is an easy interpreting tool, and it is directly related with the propofol's pharmacokinetic in the first 5 minutes of the infusion.

After analysing our data, the Cortínez's model showed a better predictive ability at the moment of loss of

consciousness than Schnider's model [1]. Cortínez estimates a higher bolus induction compared to Schnider, due to its slower Ke0 ( $T_{peak} 2.1 \text{ min}^{-1}$ ), without generating significant changes in hemodynamics or the Cardiac Output during induction or maintenance of anaesthesia [2].

The methodology of our study is based on measurement of clinical parameters and the data obtained are relevant to anaesthesiologists in their daily practice.

## REFERENCES

1. Cortínez LI, Anderson BJ, Penna A, Olivares L, Muñoz HR, et al. (2010) Influence of obesity on propofol pharmacokinetics: derivation of a pharmacokinetic model. *BJA* 105: 448-456.
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