

TIVA-TCI IN MORBIDLY OBESE PATIENTS

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Morbid obesity is a chronic illness of multifactorial aetiology which is defined as Body Mass Index (BMI) greater than 40 kg/m².

Class IV obesity is the primary group for surgical consideration, and surgery is also indicated when BMI is greater than 35 with significant associated co-morbidities.

Drug pharmacokinetics differ in obese compared with non-obese patients, depending on factors related both to obesity and the drug used. Highly lipophilic substances such as barbiturates and propofol, show significant increases in volume of distribution (VD) for obese individuals relative to normal-weight individuals so that the absolute dose should be increased, but not calculated according to total body weight.

Propofol is a short acting intravenous anaesthetic with an excellent recovery profile. The recent introduction of target-controlled infusion (TCI) systems gives the further potential for improving both rapidity and accuracy in achieving and maintaining a desired level of anaesthesia.

Different studies have been performed to assess predictive performance of TCI systems for propofol in different clinical settings, but the performance in morbidly obese patients has not yet been determined.

The aim of this lecture was to report the results of our study assessing the predictive performance of target-controlled infusion of propofol (Marsh model, $KeO=0.25$) in morbidly obese patients undergoing bilio-intestinal bypass surgery.