475374 - ANALYSIS BY HOLTER-ECG OF ARRYTHMOGENIC EFFECTS OF PROPOFOL VS SUPRANE FOR THE MAINTAINANCE OF GENERAL ANESTHESIA IN THE OBESE PATIENT

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Introduction: Perioperatively 60 to 90 % of surgical patients present cardiac arrhythmias. Wang and all(1) provided evidence that obesity is an important risk factor for arrhythmias in the adult. Suprane is known to trigger the autonomic nervous system and could possibly enhance arrhythmias in risk groups. The aim of this study was to evaluate the incidence of arrhythmias, comparing propofol and suprane maintainance in obese patients.

Methods: Our study was approved by the Research Ethics Board of our hospital and we obtained informed consent from 46 patients scheduled for bariatric surgery. Patients with a body mass index $>35\text{kg/m}^2$ were randomly assigned to maintainance by propofol (Group A; $n=21$) or suprane (Group B; $n=19$). We monitored all patients by Holter-ECG 24 hours prior to surgery (Period 1=Pd1) and 24 hours following surgery(Period 2=Pd2)

Results: Mean heart rate (MHR) rose significantly after surgery for all patients (A+B) with $p=0.0018$. Within Group A, MHR was significantly higher during Pd 2 ($p=0.0107$). There was a near significant rise in MHR for group B during Pd2. Mean heart rate variability (MHRV) within Group A did not change significantly between Pd1 and 2 ($p=0.20$). However group B presented a statistically significant narrowing of MHRV ($p=0.0266$). We noted no differences in the occurrence of supra ventricular and ventricular arrhythmias.

Discussion: Suprane is responsible for narrowing of MHRV. Depressed heart rate variability is an independant predictor of mortality and arrhythmic complication in cardiac pathologies(2). We suspect that suprane could possibly trigger postoperative arrhythmias in the obese patient. We did not observe more arrhythmic incidents with suprane in our study, the reason might be the small number of cases.

References: 1.Wang TJ and all. JAMA 2004;292:2471-77 2. Task force of the ESC the NAS of Pacing Electrophysiology.Circulation.1996;93:1043-65

Results

MHR			
Group A	Pd 1	$77,28 \pm 1,90$	p=0.0107*
	Pd 2	$84,67 \pm 2,50$	
Group B	Pd 1	$78,82 \pm 3,53$	p=0.053
	Pd 2	$78,82 \pm 3,53$	
MHRV			
Group A	Pd 1	$77,5 \pm 5,39$	p=0.20
	Pd 2	$69,11 \pm 5,48$	
Group B	Pd 1	$92,11 \pm 5,26$	p=0.0266*
	Pd 2	$72,18 \pm 5,13$	