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 Abstracttitel: AUTONOMIC NERVOUS SYSTEM ACTIVITY DURING PROPOFOL-INDUCED  
 HYPOTENSION IN CAD PATIENTS

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Purpose of our study was to research autonomic nervous system (ANS) activity during Propofol-induced hypotension in patients with coronary artery disease.

Method. 18 patients undergoing CABG surgery were examined in prospective study. Cardiac output and selected derived variables is that of impedance cardiography. Power spectral analysis of the short-term records (5 min) of heart rate variability (HRV) has been used to study ANS. High Frequency (HF), Low Frequency (LF) in normalized unit, LF/HF and Total Power were analysed. In the operating-room patients were administered Propofol (Diprivan, AstraZeneca) in dose 1 mg/kg.

Results. Since analyze initial HRV was formed two groups: Gr. 1 (n=10) with high activity of sympathetic nervous system (SNS) and Gr. 2 (n=8) had high activity of parasympathetic nervous system (PsNS). The results of analyze HRV after Propofol administration are presented in the table (\*p<0.05 – between previous step)

| gr. | Step     | HF normal (n.u.) | LF/HF     | MAP (mm Hg) | SI (ml/m <sup>2</sup> ) |
|-----|----------|------------------|-----------|-------------|-------------------------|
| 1   | Before   | 11.3±4.59        | 6.8±3.84  | 109±12.4    | 37.2±4.6                |
|     | Propofol | 16.7±6.23*       | 3.8±2.47* | 89±14.1*    | 31.6±7.1*               |
| 2   | Before   | 39.6±13.5        | 1.4±0.89  | 110±10.3    | 36.8±5.6                |
|     | Propofol | 25.5±12.3*       | 2.5±1.10* | 88±13.5*    | 34.5±6.3                |

Lowering of systolic blood pressure (SBP) after propofol administration had all patients (135.3±20.4 mm Hg versus 114±19.63 min after Propofol, P=0.003). In gr. 1 were more patients with reduction of initial stroke index (9 of 10) versus gr. (2 of 8, P<0.05).

Conclusion. During low dose Propofol-induced hypotension depressed activity both parts of ANS.