THE COMPARISON OF HEMODYNAMICS VARIABLES USING FLOTRAC (SENSOR) IN THE ENDOVASCULAR REPAIR OF ABDOMINAL (EVAR) AND THRACIC AORTIC ANEURYSM (TEVAR) USING DIFFERENT ANESTHETIC TECHNIQUES

S. Tsakiliotis¹

¹General Hospital Papageorgiou, Anaesthesiology, Thessaloniki, Greece

C. Pourzitaki²

²School of Health Sciences Aristotle University of Thessaloniki, ICU AHEPA University Hospital Faculty of Medicine-, Thessaloniki, Greece

V. Chasapidis³

³General Hospital Papageorgiou, Anaesthesiology, Thessaloniki, Greece

P. Douma⁴

⁴General Hospital Papageorgiou, Anaesthesiology, Thessaloniki, Greece

M. Doumparatzis⁵

⁵General Hospital Papageorgiou, Anaesthesiology, Thessaloniki, Greece

G. Tsaousi⁶

⁶-School of Health Sciences Aristotle University of Thessaloniki, ICU AHEPA University Hospital Faculty of Medicine, Thessaloniki, Greece

Background and Aims:

EVAR and TEVAR is being evaluated as an alternative therapeutic access to open aneurysm repair.

In this study we estimated hemodynamic parameters, like as cardiac output (CO), stroke volume (SV), and stroke volume variation (SVV) using FloTrac and compare these variables between spinal anaesthesia (EVAR) and general anaesthesia (TEVAR).

Methods: Thirty eight (EVAR) and thirty five patients (TEVAR) were enrolled. Intraoperative monitoring included pulse oxymetry, electrocardiogram with ST-segment analysis and FloTrac (sensor) using Vigileo monitor (by Edwards Lifesciences) in combination with invasive radial arterial pressure.

We recorded values of CO, SV, SVV, through the Vigileo device, at the following times:

- (i) 5min after application of spinal anesthesia or induction in general anaesthesia,
- (ii) 3 min before the expansion of endograft,
- (iii) 1min after the deployment of central graft and
- (iv) 1min after the deployment of peripheral graft limb.

Differences between these specific times were evaluated by one sample t-test, Kolmogorov smirnov test, friedman test and pearson correlation ($p < 0,05$).

Results There was significance difference in CO in comparison two anesthetic technique in times (i), (ii) and (iii).

Also there was significant difference in SV between two groups in (i) and (ii) time period.

The same findings we had in SVV in (iii) and (iv) times.

Conclusions: The spinal anesthesia (EVAR) provides better hemodynamic stability in comparison with the general anaesthesia (TEVAR).

Also there were differences between two groups in vascular tone (SVV), in (iii) and (iv) times, considering the need for low blood pressure in TEVAR technique.