

**SCA 76**  
**CARDIOVASCULAR COMPLICATIONS RELATED TO REGIONAL ANESTHESIA IN CAROTID ENDARTERECTOMY – A COMPARISON OF CERVICAL EPIDURAL AND CERVICAL PLEXUS BLOCK**

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**Objective:** The aim of this retrospective study was to evaluate a hemodynamic profile of the patient during carotid endarterectomy under regional anesthesia technique and to compare the perioperative cardiovascular stability and complication rate between cervical epidural anesthesia (CEA) and cervical plexus block (CPB).

**Material and Methods:** 506 carotid artery endarterectomies performed under regional anaesthesia in our departments in the 1998-2003 period were included into this study. A total of 305 procedures were performed using cervical plexus block, while cervical epidural anesthesia was used in 201 operations. The evaluated parameters included the systolic, diastolic and mean pressures, heart rate before, during and after the procedure. The circulatory complications in the perioperative period and the consumption of the cardiovascular drugs were also established. The obtained data were analyzed statistically using ANOVA test. P values <0.05 were evaluated significant.

**Results:** Hypertension with the need of pharmacotherapy was noted in 176 patients in CPB group (57.7%) and in 24 patients in CEA group (11.9%) respectively (P <0.001). Hypotension and/or brady-

cardia were recorded in 28 patients in CPB group (9.2%) and in 39 patients in CEA group (19.4%). Life threatening dysrhythmias were noted in 16 cases (3.2%) (14 cases in CPB group, 2 cases in CEA group). Acute myocardial infarction complicated the perioperative course in 6 CPB/1 CEA (2.0% vs. 0.5%) (P < 0.01). Total intraoperative mortality in the cohort was 5 patients (0.9%, 4 CPB/1 CEA). 4 deaths were related to intraoperative stroke, 1 deaths (the patient in CPB group) was because the myocardial infarction with subsequent heart failure.

**Conclusion:** Both techniques of regional anesthesia are reliable for carotid artery surgery. Cervical plexus block is associated with higher rates of cardiovascular complications related mainly to increased stress response, hypertension and the risk for perioperative myocardial ischemia. We recommend to use cervical epidural anesthesia in patients with a serious cardiac history, mainly because of its blocking of the stress response and its coronary dilator effect.

**References:**

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