

**[P3-76] Degree of Catecholamine Hypersecretion Is the Most Important Determinant of Surgical Hemodynamic Parameters in Sporadic Pheochromocytoma.**

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Pheochromocytoma resection might be associated with severe intraoperative hypertension and post-resection hypotension. The factors associated with these hemodynamic changes are not well defined. Therefore we analyzed the clinical, laboratorial and hormonal features associated with changes in blood pressure levels and heart rate during the surgical procedure in a cohort of 33 patients with pheochromocytoma ( $39.4 \pm 14.4$  years; 23 (66%) female; 25 sporadic and 8 associated to multiple endocrine neoplasia; mean arterial blood pressure (MABP):  $98.4 \pm 16.8$  mm Hg). Patients have undergone tumor resection by open (n=18) or videolaparoscopic (n=9) approach. Preoperative treatment with  $\alpha$ -blockers (phentolamine or prazosin) were performed in 19 patients for at least 2 weeks aiming to reduce BP levels as close as possible to the normal levels. The intraoperative hemodynamic data analyzed were: maximum and minimum MABP, number of severe hypertensive episodes (systolic blood pressure  $\geq 200$  mm Hg), maximum and minimum heart rate (HR), number of episodes of tachycardia and bradycardia (heart rate  $\geq 100$  beats/min and  $\leq 50$  beats/min, respectively), need to receive i.v. transoperative treatment for hypertension (i.e. nitroprusside,  $\alpha$ -blockers or  $\beta$ -blockers) and hypotension (i.e. norepinephrine) as well as the volume of fluids administered during surgery. The transoperative number of severe hypertensive episodes (58% vs. 50%) and the change of MABP ( $40.1 \pm 13.2$  vs.  $30.8 \pm 30.1$  mmHg) were not different in patients treated preoperatively with  $\alpha$ -blockers than those not treated. Only maximum HR was higher ( $120 \pm 21$  bpm) in patients not treated preoperatively with  $\alpha$ -blockers than those treated ( $101.7 \pm 21$  beats/min,  $P=0.043$ ). There was no difference also in the hemodynamic parameters in patients with open surgery and videolaparoscopic. However only in patients with sporadic pheochromocytoma it was observed a positive correlation between catecholamine secretion and intraoperative maximum MABP ( $r=0.618$ ,  $P=0.008$ ) as well as lesion weight and amount of fluid administration during surgery ( $r=0.697$ ,  $P=0.010$ ). In conclusion, the degree of catecholamine hypersecretion was the most important variable associated to intraoperative hypertension in sporadic pheochromocytoma and preoperative use of  $\alpha$ -blocker was not associated with better blood pressure control during surgery.