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REVIEW WITH CASE REPORT

ORGAN OF ZUCKERKANDL AS A SOURCE OF PARAGANGLIOMA  
PHEOCHROMOCYTOMA

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**ABSTRACT**

*Pheochromocytoma and paraganglioma of the organ of Zuckerkandl are rare neuroendocrine tumors of neural crest cells with the classic symptomatic triad of tachycardia, headache, and profuse sweating. To confirm the diagnosis of pheochromocytoma and paraganglioma, increased plasma concentrations of metanephrines and increased fractionated metanephrines in 24-hour urine are determined. A computed tomography is the most reliable diagnostic test method, and magnetic resonance imaging may be done. The main treatment of pheochromocytoma and paraganglioma is divided into medicinal, surgical, and auxiliary tumor treatments.*

*The patient was admitted to the surgical department in 2017 with complications of abdominal and lumbar pain, general weakness. In the past 8 years, the patient has suffered from an aggressive form of arterial hypertension (systolic pressure ranges within 170/220 mmHg). Since 2011, there has been an increase in blood glucose levels between 17 and 22 mmol/L, which is difficult to control with insulin injections only.*

*A clinical preoperative diagnosis was made: pheochromocytoma and paraganglioma of the organ of Zuckerkandl. The tumor was removed through the median laparotomy access. The course of postoperative period was uneventful. Starting from the second day after the surgery and in the following months, blood pressure did not rise above 120/80, and blood glucose levels returned to normal.*

*To avoid intra- and postoperative complications, 1-14 days prior to surgery, patients should be given appropriate  $\alpha$ -blockers, calcium channel blockers, and  $\beta$ -blockers that are alternative or auxiliary treatment; which ensure increased circulating blood volume achieved by saline infusion; then after 6 months, after a year, annual tumor imaging is also required. Postoperative treatment of pheochromocytoma and paraganglioma of the organ of Zuckerkandl is the main most effective treatment, it is necessary to identify and take measures to combat metastases in time.*

**KEYWORDS:** organ of Zuckerkandl, paraganglioma, pheochromocytoma, neuroendocrine tumors.

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