A CASE REPORT: FUNCTIONING CYSTIC PHEOCROMOCYTOMA

Boysan S Nur¹, Kokdas Suleyman², Gungor Tuba³, Citil Rana⁴, Citil Serdal⁵, Dagoglu Besra⁵, Caglar Serkan⁶

¹Department of Endocrinology, ²Department of General Surgery, ³Department of Anesthesiology, ⁴Department of Pathology, ⁵Department of Radiology, ⁶Department of Biochemistry

Kahramanmaras Necip Fazil City Hospital

Introduction
• Cystic adrenal neoplasms are uncommon; defined with foci of tumor presented in the cyst wall.
• Adrenal cortical adenoma, adrenal cortical carcinoma and pheochromocytoma may be associated.
• Abdominal pain, gastrointestinal symptoms and a palpable mass are the most emerging complaints.
• We report a case of functioning cystic pheochromocytoma.

Case Report
Medical history
• A 44-year-old man had an abdominal pain on the right side.
• He had a mild hypertension.

Radiology
• Abdominal ultrasonography showed a nodular cystic lesion measured 4 cm in diameter with thin septas and thickened wall in the right adrenal.
• Computed tomography confirmed hypodense lesion measured as 78x48 mm in diameter and 40 HU in density (Figure 1A).
• Magnetic resonance imaging demonstrated non-suppressed lesion in fat-suppressed sequence (Figure 1B).

Laboratory
ACTH 12 pg/mL
Cortisol 13.44 μg/dL
Urine cortisol 850.4 μg/day
1 mg Dex. Sup. 0.452 μg/dL
Plasma Renin Activity 11.8 ng/mL/hour
Aldosterone 14.61 ng/dL
VMA 46.8 mg/day
Urine metanephrines 368.7 μg/day
Urine normetanephrines 495.9 μg/day

Pathology
• Cystic structure with fibrotic wall; surrounded with solid areas of thin septas and alveolar tumoral tissue (Figure 3A-B).
• Tumoral tissue was diffuse and strongly staining with chromogranin –A (Figure 3C).
• Ki-67 staining was 0.1%.

Clinical course
• Postoperative he was normotensive.

Conclusion
• Adrenal cysts may be incidental or symptomatic.
• Pseudocysts, endothelial cysts, epithelial cysts and parasitic cysts are defined.
• The explanation for the cystic change was marked haemorrhage or degeneration; must be distinguished from tumoral necrosis.
• We report a case of cystic pheochromocytoma who was symptomatic and biochemically functioning.

Preoperative management
• Amlodipin and doxazosin were begun before 2 weeks.
• Hydration was begun before 3 days.

Operation
• He underwent right adrenalectomy with minimal invasive-laparoscopic surgery (Figure 2).
• Anesthetic induction was performed with fentanyl, propofol, vecuronium and lidocaine.
• During manipulation of adrenal lesion three hypertensive attacks occurred; infusion of nitroglycerine, nitroprusside and diltiazem were given.

Nuclear Medicine
• Iodine-123 MIBG images showed right adrenal lesion accumulation.