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Renal Malperfusion: Spontaneous Renal Artery Dissection and with Aortic Dissection

Yong-Pil Cho*

Department of Surgery, University of Ulsan College of Medicine and Asan Medical Centre, Republic of Korea

INTRODUCTION

Spontaneous Renal Artery Dissection (SRAD) is a rare event that can be difficult for physicians to diagnose and treat. We report a case of his SRAD in a healthy 56 year old man who presented with flank pain, fever, and elevated white blood cell count [1]. The patient was initially diagnosed with nephrolithiasis for pyelonephritis and was admitted for follow-up. Several imaging tests, including non-contrast Computed Tomography (CT), gadolinium Magnetic Resonance Imaging (MRI), CT angiography, and intraoperative angiography, have been used to confirm the diagnosis of SRAD. The patient was treated with endovascular stent placement and is currently laboratory and blood pressure normal and pain free [2]. Due to its rarity, SRAD can be difficult to diagnose and treat. Many imaging tests such as Computed Tomography (CT), Intravenous Pyelography (IVP), or Magnetic Resonance Imaging (MRI) can aid in diagnosis, but the gold standard is angiography. Treatment options depend on the severity of the patient's clinical condition [3]. Anticoagulant monitoring, endovascular procedures, open vessel surgery, and nephrectomy were all effective treatments. This describes a healthy gentleman who presented with flank pain, fever, and elevated white blood cell count and was diagnosed with SRAD after undergoing a battery of imaging tests, including angiography [4].

DESCRIPTION

Iatrogenic (guide wires, catheters and angioplasty balloons), spontaneous and gouty (sepsis, malignancies, stroke, chronic renal failure and cirrhosis). Chronic renal artery dissections are classified as functional and stationary [5]. Spontaneous Renal Artery Dissection (SRAD) is a rare but important cause of flank pain and should be considered as a differential diagnosis by physicians [3]. It can be both a cause and a consequence of uncontrolled hypertension. Depending on the severity, extent, and involvement of the main artery or branch, SRAD can cause varying degrees of renal ischemia, renin-mediated renovascular hypertension, and renal infarction [1]. Other disorders associated with the development of SRAD include fibromuscular dysplasia, malignant hypertension, severe atherosclerosis, Marfan syndrome, Ehlers-Danlos syndrome, subadventitial hemangioma, polyarteritis nodosa, and cystic medial necrosis [4]. Cocaine abuse and extracorporeal shock wave lithotripsy are rarely reported. Abnormal physical stress can lead to traction on renal arteries, and abnormalities in connective tissue integrity can predispose to vascular rupture and subsequent cascade of events such as intramural hematoma and SRAD.

CONCLUSION

Our patient had no history of renal colic, trauma, or instrumentation, and a previous contrast-enhanced CT performed 3 years earlier to evaluate and grade left renal cancer reported a normal right kidney. Therefore, dissociation was classified as acute and spontaneous. Surgical treatment of RAD aims to treat renovascular hypertension and preserve renal function. Careful preoperative evaluation is required to assess the exact preoperative status of the diseased kidney, the extent of the RAD, the extent of preoperative renal injury, and the cause of hypertension before planning the surgical strategy. Considering all our results, primary nephrectomy for the treatment of severe renovascular hypertension works with isotope plenography when the dissected kidney is already severely damaged by infarction.

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Corresponding author Yong-Pil Cho, Department of Surgery, University of Ulsan College of Medicine and Asan Medical Centre, Republic of Korea, E-mail: yp_cho@amc.seoul.kr

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

REFERENCES

1. Wilkinson DA, Patel HJ, Williams DM, Dasika NL, Deeb GM (2013) Early open and endovascular thoracic aortic repair for complicated type B aortic dissection. Ann Thorac Surg 96(1): 23-30.

2. Szeto WY, McGarvey M, Pochettino A, Moser GW, Hoboken A, et al. (2008) Results of a new surgical paradigm: Endovascular repair for acute complicated type B aortic dissection. Ann Thorac Surg 86(1): 87-93.

3. Williams DM, Lee DY, Hamilton BH, Marx MV, Narasimham DL, et al. (1997) The dissected aorta: Percutaneous treatment of ischemic complications-principles and results. J Vasc Interv Radiol 8(4): 605-625.

4. Rooden CJ, Baalen JM, Bockel JH (2003) Spontaneous dissection of renal artery: Long-term results of extracorporeal reconstruction and autotransplantation. J Vasc Surg 38(1): 116-122.

5. Müller BT, Reiher L, Pfeiffer T, Müller W, Hort W, et al. (2003) Surgical treatment of renal artery dissection in 25 patients: Indications and results. J Vasc Surg 37(4): 761-768.