

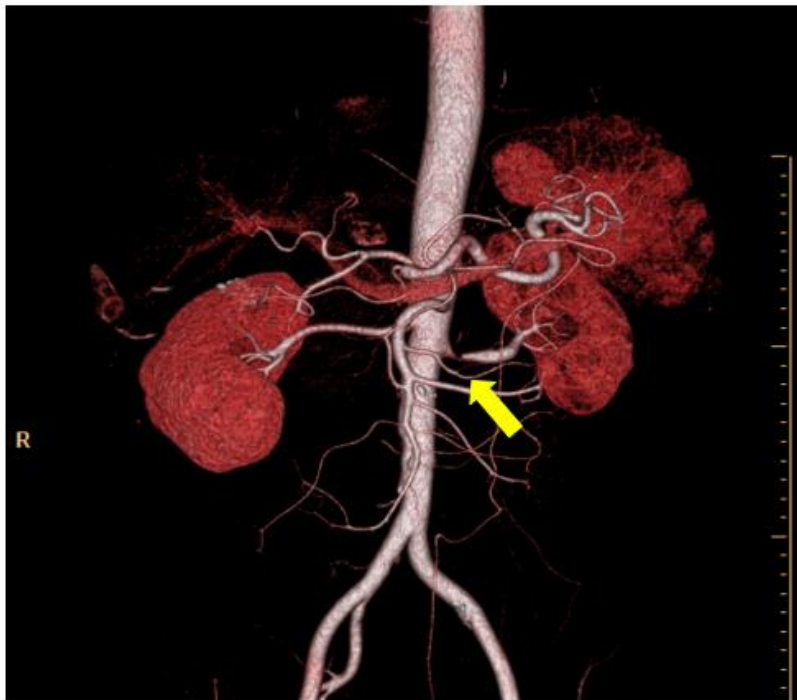
## Thoracolumbar junction syndrome mimicking with renal artery stenosis: A CASE REPORT

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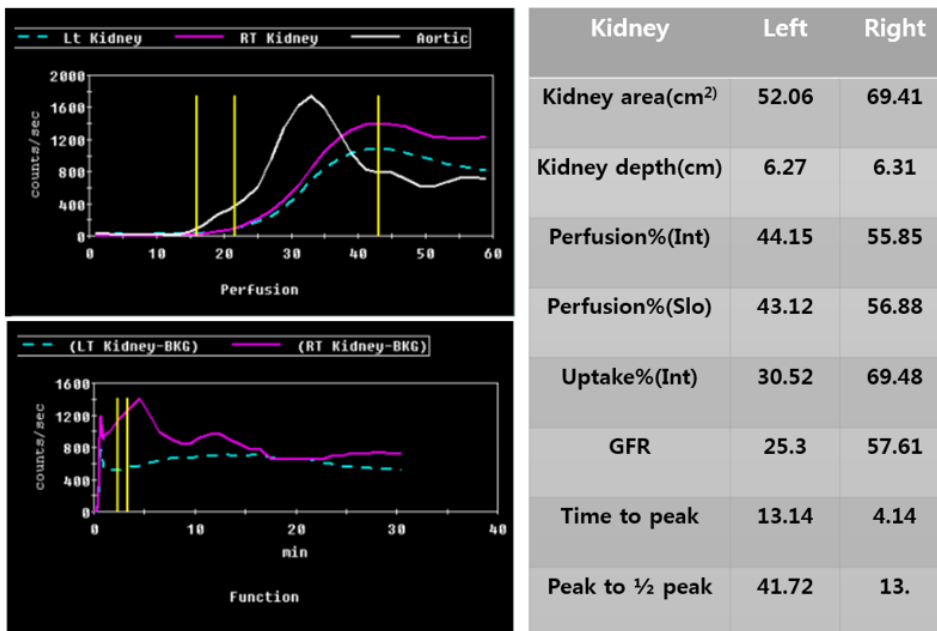
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Flank pain is most commonly caused by one of three causes: urinary tract infection, kidney stone, and musculoskeletal problems like a muscle strain or pinched nerve. If there are abnormal image findings of genitourinary system, this will play an important role in diagnosing. However, similar pain can be sometimes caused by extraurinary abnormalities. The thoracolumbar junction syndrome, which is caused by the entrapment of anterior or posterior ramus from T10 to L2 spinal nerve, are commonly overlooked in the differential diagnosis of flank pain. We describe the case of a patient with flank pain, which was first considered as symptoms caused by renal artery stenosis but improved by the treatment of thoracolumbar junction syndrome. A 55-year-old man with left flank pain, rated as a 10/10 on the numeric rating system (NRS), for 1 week presented at the urology outpatient clinic. The patient has been taking a combination of angiotensin receptor blocker and calcium channel blocker due to hypertension for 5 years. He had an abdomen–pelvic computerized tomography (CT) for accurate diagnosis and found severe stenosis in the proximal part of left renal artery (Fig. 1). The laboratory data and plain radiograph of chest and abdomen were within normal limits. On DTPA scan, decreased function of left kidney was checked (Fig. 2). The patient was transferred to cardiology department for the intervention. Percutaneous transluminal angioplasty demonstrated proximal severe stenosis (80–90%) of left renal artery and stent was inserted. Although the pain was relieved after the stent insertion, rating as a 5/10 on NRS, the patient still felt pain on the same region. He was consulted to our department to manage the pain. On physical examination, he exhibited local hyperesthesia and pain by pinch and rolling on the skin over left flank compared with right side. Tenderness was observed in the paraspinal muscles at the thoracolumbar junction. Based on these findings, the patient was diagnosed with the thoracolumbar junction syndrome. The injections were conducted from left T9 to T12 paraspinal muscles with 0.5% lidocaine. After the injection, the patient reported an improvement in pain, rating a 2.5/10 on the NRS. He had 2nd injection again two days later and was discharged to home with improved clinical symptom. One week later, we confirmed that the flank pain completely disappeared at the outpatient clinic. In this case, the physician treated the cause of flank pain as the renal artery stenosis, but did not improve. The cause of persistent pain after stent insertion was due to thoracolumbar junction syndrome. It can be diagnosed through careful physical examination and is easy to treat simple injection therapy. There are many causes of flank pain containing intraurinary and extraurinary lesions. In diagnosing flank pain, thoracolumbar junction syndrome can mimic with other

intraurinary problem. For the accurate diagnosis, a detailed clinical examination is important.



**Figure 1. Abdomen renal angio CT showed focal severe stenosis in the left proximal renal artery(arrow)**



**Figure 2. Tc- 99m DTPA diuretic renal scan demonstrated decreased GFR in left kidney.**