

**Interventional Radiology Coding Case Studies**  
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**Week of February 19, 2018**

**Renal Venogram & Renal Vein Sampling**

**LEFT RENAL VENOGRAM. LEFT RENAL VEIN INTRAVASCULAR PRESSURE MEASUREMENTS. VENOUS SAMPLING OF THE RENAL VEINS BILATERALLY, HIGH AND LOW INFERIOR VENACAVA.**

52 year old female with history of labile hypertension with the most recent hypertensive crisis last night with the systolic blood pressure reaching 200 mmHg. The patient had a recent CTA of the abdomen that showed no evidence of renal artery stenosis; however, there is compression of the left renal vein by the superior mesenteric artery (nutcracker syndrome). The patient is here for a diagnostic renal venogram and to get venous sampling and to take pressures.

**INFORMED CONSENT:** The patient's diagnosis, treatment plan/procedure, risks and benefits, treatment alternatives, complications, and prognosis with and without treatment were explained to the patient and/or patient's family in plain language. Informed consent was obtained and we were asked to proceed with the procedure.

**Sedation:** The IV moderate/conscious sedation was supervised by the operating physician(s) using fentanyl and Versed for 44 minutes. The patient was independently monitored by the IVR nurse. There were no complications.

**PROCEDURE:** Under fluoroscopic control using local anesthesia and aseptic technique, the venous system was entered via right common femoral vein. A 5-French sheath was placed. Using a 5-French Cobra catheter with side holes, selective left renal venogram was performed and pullback venous pressures were obtained. In addition, samples for renin and aldosterone were obtained in the low IVC in both renal veins and in the high IVC and these were sent to the lab.

**DISCUSSION:** Left renal venogram does reveal evidence of left renal vein compression with a faint vertical defect near the origin and significant reflux in the left gonadal vein. There is some reflux into some retroperitoneal veins and the inferior adrenal vein. In addition, pullback pressures revealed a 2 mmHg gradient. These findings are consistent with a nutcracker syndrome. There is, however, no abnormal drainage of a renal vein through retroperitoneal or lumbar collaterals. Following the left renal venogram and pressure measurements, samples for renin were obtained in the low-high IVC and both renal veins. At the completion of the study, the sheath was removed and manual compression obtained.

**IMPRESSION:** Findings consistent with a left renal vein compression with extrinsic compression at the level of the superior mesenteric artery (SMA) showing areas of significant reflux in the left gonadal vein and the adrenal veins. There is, however, no abdominal drainage of the main renal vein. There is significant reflux of the gonadal vein to the pelvis. Pullback pressures reveal 2 mm gradients, which is hemodynamically significant. Venous sampling was obtained, as above described.

# Interventional Radiology Coding Case Studies CPT Codes

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## **Renal Venogram & Renal Vein Sampling**

### **Procedure Codes:**

- 36500 x2      Bilateral renin sampling
- 75893 x2      Bilateral renin sampling RS&I
- 99152          Moderate sedation first 15 minutes
- 99153 x2      Moderate sedation each additional 15 minutes

### **Diagnosis Codes:**

- I87.1          Compression of renal vein (Nutcracker Syndrome)
- R03.0          Labile hypertension

### **Applicable Coding Guidelines:**

#### **Catheterizations**

- All catheterizations required to perform organ blood sampling are bundled into code 36500.
- Catheterization codes may only be reported when separate procedures are performed in conjunction with organ blood sampling procedures.

#### **Diagnostic Angiography**

- Diagnostic venography performed with organ blood sampling is bundled in code 75893.

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## **Applicable Coding Guidelines (continued):**

### **Organ Blood Sampling (36500 & 75893)**

- Codes 36500 and 75893 are reported one time per organ sampled, not per vessel.
- Sampling of the IVC, SVC or peripheral veins during these procedures is not coded separately.
- Sampling procedures are typically performed bilaterally, however because these codes have a bilateral modifier indicator of “0”, modifier -59 is appended to the second set of codes 36500 and 75893 for bilateral procedures.

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