**Answers: Chapter 10**

**Critical Thinking Questions**

1. **Answer:** The most likely diagnosis is renal cell carcinoma. With a finding suggestive of renal cell carcinoma, the sonographer should closely evaluate the renal vein and IVC for tumor thrombus, the renal hilum and great vessels for lymphadenopathy, and the contralateral kidney.

2. **Answer:** The most likely diagnosis is a normal variant, a dromedary hump, which presents as a bulging of the lateral border of the left kidney.

3. **Answer:** Possible explanations include a hypoplastic or absent left kidney or an ectopic kidney. The most common position for an ectopic kidney is just above the pelvic brim or within the pelvis. The left side should be evaluated from the renal fossa to the pelvis.

4. **Answer:** Acute pyelonephritis is the most likely diagnosis and is usually the result of spread of bacteria from a lower urinary tract infection. APN can be unilateral or bilateral and may present as overall enlargement of the kidney, or may appear as a focal or multifocal, hypoechoic, irregular mass.

5. **Answer:** Chronic renal failure, regardless of the cause, sonographically appears bilateral, small, shrunken echogenic kidneys.