

1. Which of the following is most helpful in differentiating chromophobe RCC from an oncocytoma:
  - A. Binucleation
  - B. Granular cytoplasm
  - C. Perinuclear halos
  - D. Pleomorphism
2. A 30 y/o African American male whose mother has sickle cell disease, is found to have a renal mass by CT examination. Which of the following are the most likely histologic features of this mass:
  - A. Tubulopapillary architecture of infiltrating cells some with a hobnail like appearance. Tumor cell nuclei are high grade.
  - B. Clear cells with abundant cytoplasm, irregular nuclei, and a fine network of thin walled vessels surrounding nests of cells.
  - C. Reticular / yolk sac-like pattern with focal areas having an adenoid-cystic pattern.
  - D. Tubular Mucinous Spindle cell RCC
  - E. Papillary cores filled with foamy macrophages admixed with other areas of tubular and solid architecture. The cytoplasm is acidophilic, and no clear cell component is identified.
3. An 18 y/o Caucasian male is found to have a renal tumor with clear cell RCC histology. It is important to perform cytogenetic analysis on this mass to look for involvement of which of the following chromosomes:
  - A. 3p
  - B. Xp11.2
  - C. Chromosome 11p13
  - D. chromosome 7
  - E. None of the above
4. A 5 cm mass is removed from a 41 y/o female which is found to have areas of smooth muscle cells, blood vessels, and fat. Special stains for HMB-45 were positive. This lesion is associated with all of the following conditions EXCEPT:
  - A. Tuberous sclerosis
  - B. von Hippel-Lindau (VHL) syndrome
  - C. Birt-Hogg-Dube syndrome
  - D. von Recklinghausen disease
5. According to the AJCC staging manual, all of the following affect the pathological staging of renal cell carcinoma EXCEPT:
  - A. Size
  - B. Extension into perinephric fat
  - C. Fuhrman grade
  - D. Extension into renal sinus fat
  - E. Renal vein involvement
6. An incidental renal lesion <1cm with papillary features and composed of predominantly clear cells is best classified as:
  - A. Papillary adenoma
  - B. Renal cell carcinoma, clear cell type
  - C. Papillary carcinoma
  - D. Renal cell carcinoma, chromophil type
  - E. Renal cell carcinoma, NOS

7. Which of the following result in the highest stage for a renal cell carcinoma according to the 2002 AJCC staging manual:
  - A. Tumor invades beyond Gerota's fascia
  - B. Tumor grossly extends into the vena cava above the diaphragm
  - C. Tumor grossly invades the wall of the vena cava
  - D. Tumor directly invades adrenal gland
  - E. Metastasis to one single regional lymph node
  
8. A renal tumor has predominantly clear cells with the highest grade area containing cells with irregular nuclear border (size ~20µm) and nucleoli visible from 10X. Many of the cells are noted to have eccentrically placed nuclei and eosinophilic cytoplasm. The best Fuhrman grade is:
  - A. Fuhrman grade I
  - B. Fuhrman grade II
  - C. Fuhrman grade III
  - D. Fuhrman grade IV
  - E. Fuhrman grade V
  
9. The best diagnosis for the renal mass illustrated in the image 1 set on the website (Vol. 1, No. 10 – Renal Tumors, Part 2) is which of the following:
  - A. Renal Cell Carcinoma, Conventional
  - B. Renal Cell Carcinoma, Chromophobe
  - C. Renal Cell Carcinoma, Papillary
  - D. Oncocytoma
  - E. None of the above
  
10. The best diagnosis for the renal mass illustrated in the image 2 set on the website (Vol. 1, No. 10 – Renal Tumors, Part 2) is which of the following:
  - A. Renal Cell Carcinoma, Conventional
  - B. Renal Cell Carcinoma, Chromophobe
  - C. Renal Cell Carcinoma, Papillary
  - D. Oncocytoma
  - E. None of the above
  
11. The best diagnosis for the renal mass illustrated in the image 3 set on the website (Vol. 1, No. 10 – Renal Tumors, Part 2) is which of the following:
  - A. Renal Cell Carcinoma, Conventional
  - B. Renal Cell Carcinoma, Chromophobe
  - C. Renal Cell Carcinoma, Papillary
  - D. Oncocytoma
  - E. None of the above
  
12. The best diagnosis for the renal mass illustrated in the image 4 set on the website (Vol. 1, No. 10 - Renal Tumors, Part 2) is which of the following:
  - A. Wilm's tumor
  - B. Rhabdomyosarcoma
  - C. Renal cell carcinoma, papillary type
  - D. Metanephric adenoma
  - E. None of the above

13. Image 5 on the website (Vol. 1, No. 10 - Renal Tumors, Part 2) shows a renal tumor stained with Hale's Colloidal Iron. The most likely diagnosis is:
  - A. RCC, conventional type
  - B. RCC, papillary type
  - C. RCC, sarcomatoid type
  - D. RCC, chromophobe type
  - E. Oncocytoma
  
14. This tumor from the kidney illustrated in image 6 on the website (Vol. 1, No. 10 - Renal Tumors, Part 2) was negative for S-100 and desmin. In other areas of the tumor, RCC marker was focally positive. Which of the following is the best diagnosis?
  - A. RCC, Fuhrman grade IV
  - B. Metastatic malignant melanoma
  - C. Rhabdomyosarcoma
  - D. Leiomyoma
  - E. None of the above