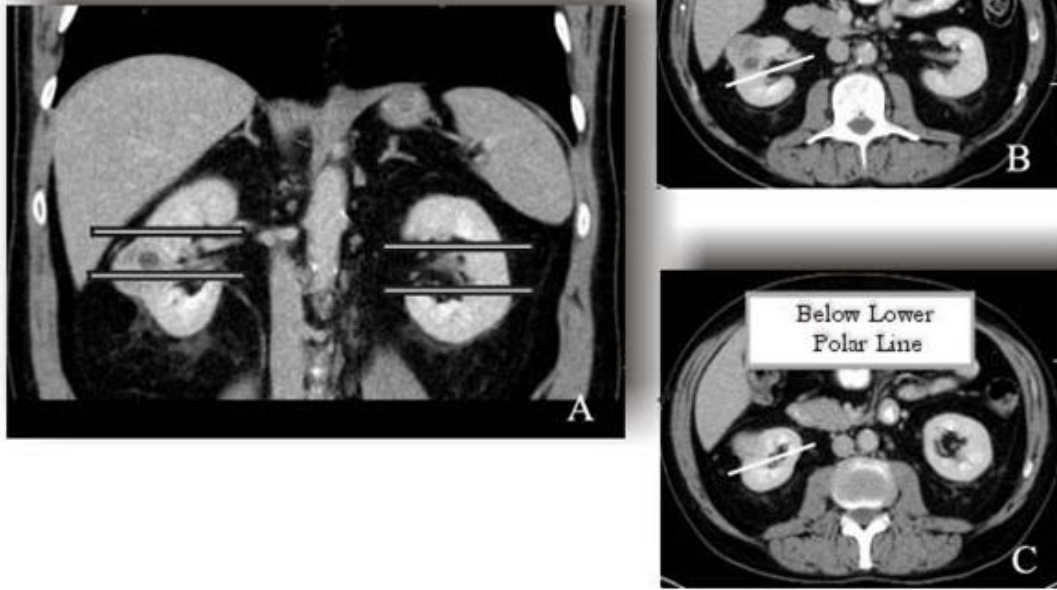


R.E.N.A.L. Nephrometry Scoring System

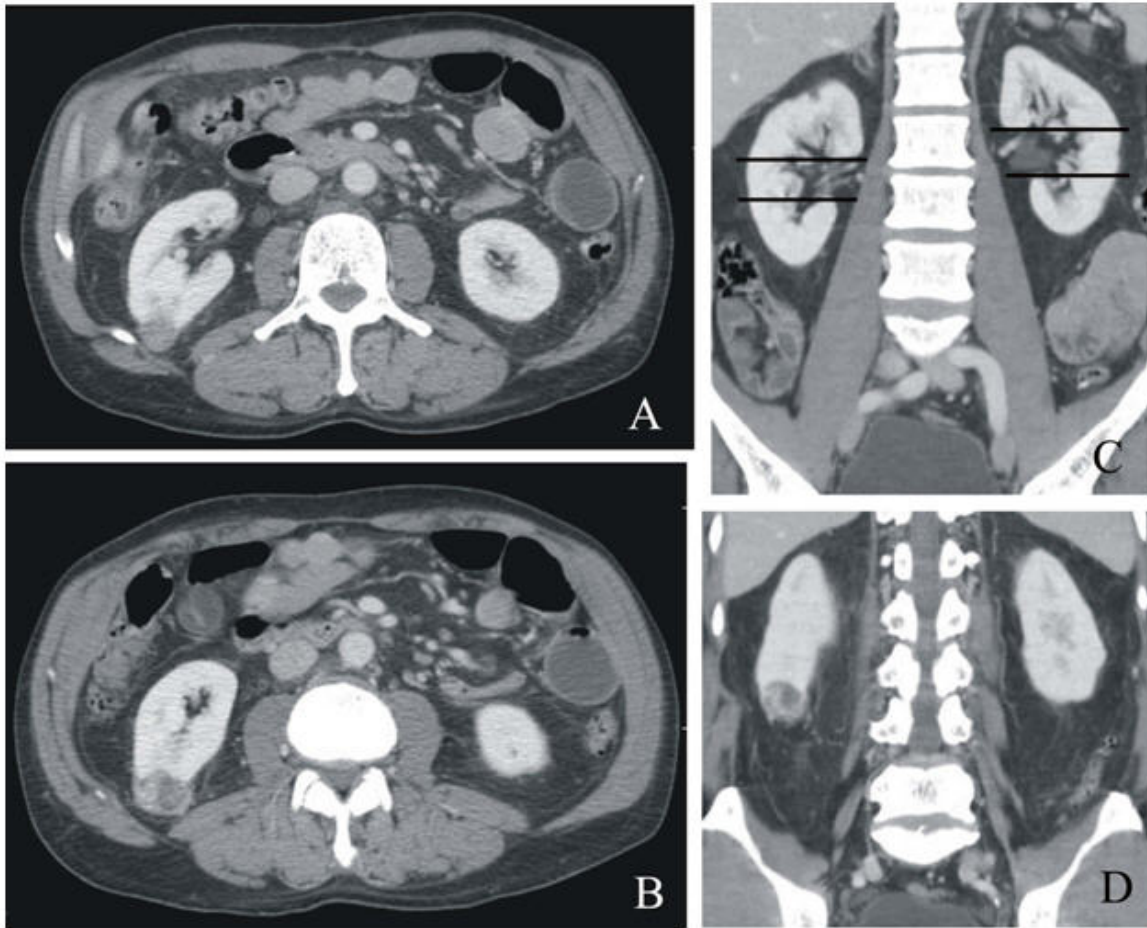
FOX CHASE
CANCER CENTER



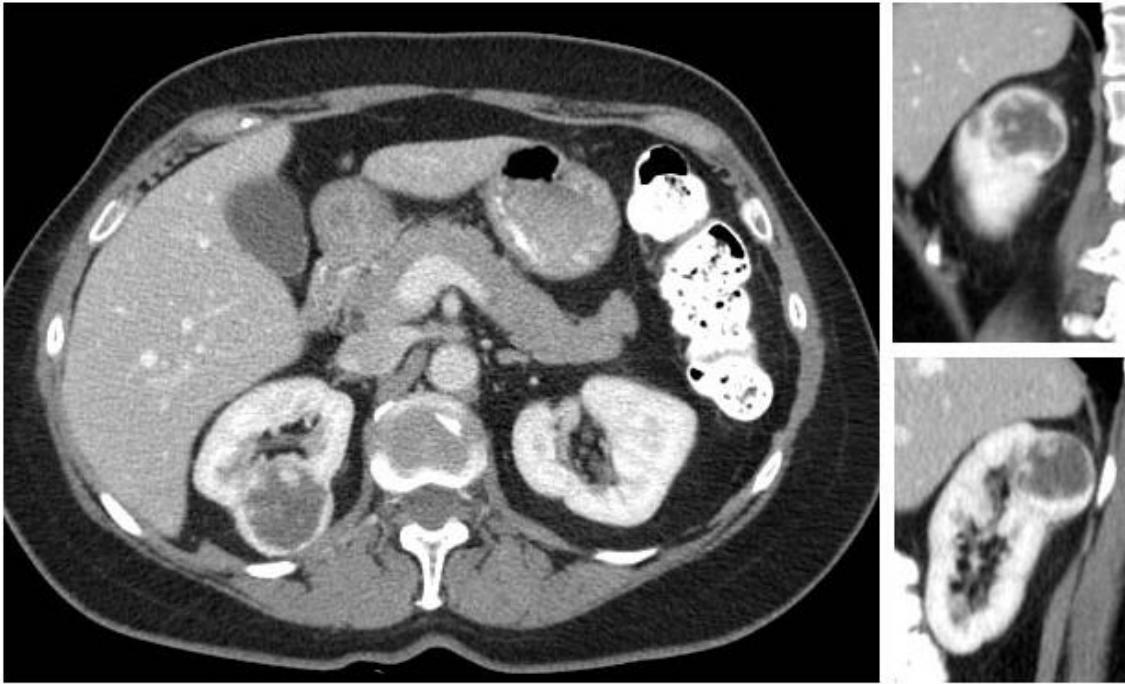
Example 1: The dotted line demonstrates how the expected renal contour is estimated for determination of the (E)xophytic/endophytic attribute of the R.E.N.A.L. score. Renal mass in this example abuts the main renal vasculature and therefore is designed as hilar with the suffix "h." R.E.N.A.L.-N.S. = $3+1+3+a+2h=9ah$. Patient underwent open partial nephrectomy for pT2NxM0 Papillary Type 2 RCC.



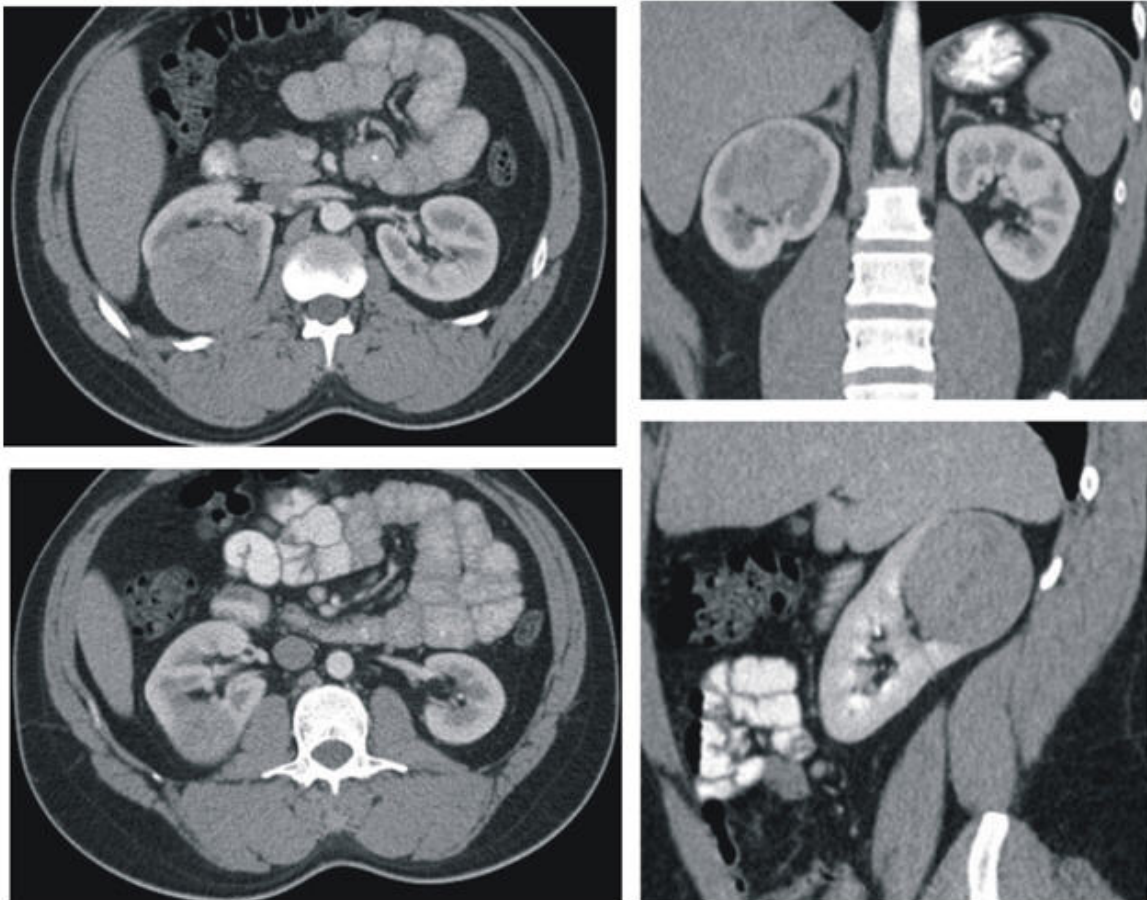
Example 2: **A:** Scoring of the (L)ocation component of R.E.N.A.L.-NS is determined in relation to the upper or lower polar line (shown). **B:** Polar lines are defined as the portion of the kidney where the concentric rim of the renal parenchyma is interrupted by the renal hilar vessels, pelvis, or fat on axial imaging. Panel B depicts an axial cut between the polar lines. Note how the medial renal parenchyma is interrupted by sinus fat and renal vessels. The line drawn over right kidney divides the kidney into anterior and posterior components. **C:** Axial cut below the lower polar line. Note the concentric rim of renal parenchyma in both kidneys that surrounds the sinus fat. Line again drawn to divide kidney for anterior and posterior designations.



Example 3: Enhancing renal mass with a low (4-6) complexity R.E.N.A.L. nephrometry score: $1+1+1+p+2=5p$. **A:** Axial cut between the polar lines of the right kidney and below the lower polar line of the left kidney. In case of the right kidney, the medial aspect of renal parenchyma is interrupted by sinus fat and vessel, whereas on this axial cut of the left kidney there is a concentric rim of continuous parenchyma. **B:** Axial cut below the lower polar line of both kidneys. A concentric rim of renal parenchyma is clearly seen surrounding sinus fat. Although the mass crosses the polar line, the majority of tumor volume is below the lower polar line (best determined by counting the number of axial cuts above and below the polar line); therefore, the mass receives 2 points for the L-component of the nephrometry score. **C:** Coronal cut through both kidneys that clearly depicts the upper and lower polar lines (shown). Due to its posterior location, the mass cannot be seen on this view. **D:** Coronal section that clearly shows the mass; however, the tumor's relationship to the polar lines cannot be assessed in the coronal plane. In this case axial imaging must be used to assess the relationship between the tumor and the polar lines. Patient underwent robot-assisted laparoscopic partial nephrectomy pT1aNxM0 grade 2 clear cell RCC.



Example 4: Enhancing renal mass with an intermediate (7-9) complexity R.E.N.A.L. nephrometry score: $1+2+3+p+2=8p$. Patient underwent robot-assisted partial nephrectomy for a pT1aNxM0 grade 3 clear cell RCC.



Example 5: Enhancing renal mass with a high (10-12) complexity R.E.N.A.L. nephrometry score: $3+2+3+p+3=11p$. Although the majority of this tumor's volume is above the upper polar line, this particular mass crosses the renal axial midline, earning a score of 3 for the (L) component. We define the renal axial midline as the axial cut half-way between the upper and lower polar lines. The patient underwent an open partial nephrectomy for pT2NxM0 chromophobe RCC.

[home](#)

