Renal Mass and Localized Renal Cancer

Evaluation/Diagnosis
1. Obtain high quality, multiphasic, cross-sectional abdominal imaging to optimally characterize stage the renal mass.
2. Obtain CMP, CBC, and UA. If malignancy suspected, metastatic evaluation should include chest imaging and careful review of abdominal imaging.
3. Assign CKD stage based on GFR and degree of proteinuria.

Counseling
1. A urologist should lead the counseling process and should consider all management strategies. A multidisciplinary team should be included when necessary.
2. Counseling should include current perspectives about tumor biology and a patient-specific oncologic risk assessment. For cT1a tumors, the low oncologic risk of many small renal masses should be reviewed.
3. Counseling should review the most common and serious urologic and non-urologic morbidities of each treatment pathway and the importance of patient age, comorbidities, frailty, and life expectancy.
4. Physicians should review the importance of renal functional recovery related to renal mass management, including risk of progressive CKD, potential short/long-term need for dialysis, and long-term overall survival considerations.
5. Consider referral to nephrology with a high risk of CKD progression, including those with GFR < 45, confirmed proteinuria, diabetics with preexisting CKD, or whenever GFR is expected to be < 30 after intervention.
6. Recommend genetic counseling for all patients ≤ 46 years of age and consider genetic counseling for patients with multifocal or bilateral renal masses, or if personal/family history suggests a familial renal neoplastic syndrome.

Partial Nephrectomy (PN) and Nephron-Sparing Approaches
1. Prioritize PN for the management of the cT1a renal mass when intervention is indicated.
2. Prioritize nephron-sparing approaches for patients with an anatomic or functionally solitary kidney, bilateral tumors, known familial RCC, preexisting CKD, or proteinuria.
3. Consider nephron-sparing approaches for patients who are young, have multifocal masses, or comorbidities that are likely to impact renal function in the future.

Radical Nephrectomy (RN)
1. Physicians should consider RN for patients where increased oncologic potential is suggested by tumor size, RMB, and/or imaging characteristics. In this setting, RN is preferred if all of the following criteria are met: 1) high tumor complexity and PN would be challenging even in experienced hands; 2) no preexisting CKD or proteinuria; and 3) normal contralateral kidney and new baseline GFR will likely be > 45.

Radical Ablation (TA)
1. Consider TA an alternate approach for management of cT1a renal masses < 3 cm in size. A percutaneous approach is preferred.
2. Both radiofrequency ablation and cryoablation are options.
3. A RMB should be performed prior to TA.
4. Counseling about TA should include information regarding increased likelihood of tumor persistence/recurrence after primary TA, which may be addressed with repeat TA if further intervention is elected.

Management

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Thermal Ablation (TA)
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Active Surveillance (AS)
1. For patients with renal masses suspicious for cancer, especially those >2 cm, AS is an option for initial management.
2. Prioritize AS/Expectant Management when the anticipated risk of intervention or competing risks of death outweigh the potential oncologic benefits of active treatment.
3. When the risk/benefit analysis for treatment is equivocal and the patient prefers AS, physicians should repeat imaging in 3-6 months to assess for interval growth and may consider RMB for additional risk stratification.
4. When the oncologic benefits of intervention outweigh the risks of treatment and competing risks of death, physicians should recommend active treatment. In this setting, AS may be pursued only if the patient understands and is willing to accept the associated oncologic risk.

Factors Favoring AS/Expectant Management

Patient-related
1. Elderly
2. Life expectancy < 5 years
3. High comorbidities
4. Excessive perioperative risk
5. Frailty (poor functional status)
6. Patient preference for AS

Tumor-related
1. Tumor size < 3 cm
2. Tumor growth < 5 mm/year
3. Non-infiltrative
4. Low complexity
5. Favorable histology

1. Focus is on clinically localized renal masses suspicious for RCC in adults, including solid enhanced tumors and Bosniak 3 and 4 complex cystic lesions. 2. ml/min/1.73m².