Renal Mass and Localized Renal Cancer

Evaluation and Counseling

**EVALUATION/DIAGNOSIS**
1. Obtain high quality, multiphase, cross-sectional abdominal imaging to optimally characterize/stage the renal mass.
2. Obtain 

**RENAL MASS BIOPSY (RMB)**
1. Counsel regarding rational, positive/negative predictive values, potential risks and non-diagnostic rates of RMB.
2. RMB should be considered when a mass is suspected to be hematologic, metastatic, inflammatory, or infectious.
3. RMB should be obtained on a utility-based approach, whenever it may influence management. RMB is not required for: a) young/healthy patients who are unwilling to accept the uncertainties associated with RMB; or b) older/frail patients who will be managed conservatively independent of RMB.
4. Multiple core biopsies are preferred over FNA.

**COUNSELING**
1. A urologist should lead the counseling process and should consider all management strategies. A multidisciplinary team should be included when needed.
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.

**OTHER CONSIDERATIONS**
1. Consider nephron-sparing approaches for patients who are young, have multifocal masses, or comorbidities that are likely to impact renal function in the future.

**Intervention (PN, RN, or TA)**

**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 anatomically 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 whenever increased oncologic potential is suggested by tumor size, RMB, and/or imaging. 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/ proteinuria; and 3) normal contralateral kidney and new baseline eGFR will likely be > 45 even if RN is performed. If all of these criteria are not met, PN should be considered unless there are overriding concerns about the safety or oncologic efficacy of PN.

**THERMAL ABLATION (TA)**
1. Consider TA an alternate approach for management of cT1a solid renal masses <3 cm in size. A percutaneous approach is preferred.
2. Both radiofrequency ablation and cryoablation are options.
3. RMB should be performed prior to (preferred) or at the time of 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.

**Follow-up after Intervention**

1. Focus is on clinically localized renal masses suspicious for RCC in adults, including solid enhancing tumors and Bosniak 3 and 4 complex cystic lesions.
2. ml/min/1.73m²
3. PN: partial nephrectomy; RN: radical nephrectomy; TA: thermal ablation.