Imaging-guided radiofrequency ablation of renal masses

Mohammed Elsayed Gomaa Abd El Fadil

A substantial amount of experience supports the use of imaging-guided radiofrequency ablation in the treatment of primary RCC. Because surgical resection is a technique with low mortality and a proved success rate that is high, surgery must remain standard therapy for patients with potentially curable RCC. However, some patients with early-stage RCC may not be surgical candidates.Imaging-guided radiofrequency ablation is an option for treatment in these patients. It appears this technique has a low complication rate, preserves renal function, is well tolerated by patients, and, in a high percentage of patients, can eradicate small renal tumors. In addition, imaging-guided radiofrequency ablation shows promise for the successful care of other patients with RCC. In particular, radiofrequency ablation has been used successfully in the treatment of refractory hematuria resulting from RCC, of local recurrence of RCC, and, finally, of isolated metastases from RCC. As with the treatment of primary RCC, the data remain limited for these applications; therefore, this technique should be reserved until standard therapies have been exhausted.The use of radiofrequency ablation for the treatment of RCC is a very promising technique that should be considered a treatment option for patients with early-stage RCC who are poor surgical candidates. The use of radiofrequency ablation for the treatment of RCC is a very promising technique that should be considered a treatment option for patients with early-stage RCC who are poor surgical candidates.Conducting an ablation program requires a commitment to understanding the diagnosis and staging of renal cell carcinomas, acquiring the skills for ablative techniques, correctly interpreting the imaging after ablation, and closely following patients after treatment.Imaging-guided ablations are promising as procedures that can replace surgical resection (partial or total nephrectomy) in selected patients. Large-scale studies evaluating the long-term survival rates after percutaneous radiofrequency and cryoablation are needed, but imaging-guided percutaneous ablation is emerging as a promising treatment option for renal tumors.Imaging-guided percutaneous ablation is becoming a viable alternative to surgery for the management of locally confined renal cell carcinoma. Conducting a successful renal tumor ablation program includes understanding the treatment options for early-stage renal cell carcinoma, selecting the appropriate patients, -understanding the procedural techniques, and organizing a comprehensive follow up.