Sowing the Seeds: Metastatic Implants Along a Cryoprobe Tract; A Rare Complication of Percutaneous Renal Cryoablation

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Needle tract metastases can be a rare complication following percutaneous procedures for renal malignancies. We report a case of cryoprobe tract tumor seeding following cryoablation of a small biopsy proven renal cell carcinoma. UROLOGY 131: e3–e4, 2019. © 2019 Elsevier Inc.

CASE

A 76-year-old patient was found to have an enhancing right renal mass on computed tomography (CT) measuring, 2.6 x 2.8 cm (Fig. 1). Percutaneous needle biopsy confirmed diagnosis of clear cell renal cell carcinoma, grade 3. Metastatic evaluation was negative. Interventional Radiology performed CT-guided percutaneous cryoablation of the cT1a tumor.

Surveillance CT one-year post-ablation demonstrated new enhancement and nodularity of the index lesion concerning for recurrence (Fig. 2). Repeat percutaneous renal cryoablation was performed.

Four-month follow up CT demonstrated persistent residual enhancing nodularity within the kidney, new retroperitoneal lymphadenopathy and new nodules along the cryoprobe tracts (Fig. 3). Patient was referred to medical oncology; he is awaiting interval imaging to assess response to systemic targeted therapy.

Rate of local recurrence following renal ablative procedures is 3.7% comparable to partial nephrectomy.¹² No contemporary series among percutaneous renal cryoablation have reported needle tract seeding for renal cell carcinoma.¹ To our knowledge, this is the first reported case of renal cell carcinoma tumor metastases along the percutaneous cryoprobe tract. This phenomenon has been reported with renal mass biopsy, however.¹ Albeit rare, percutaneous manipulation of renal cell carcinoma, whether with ablation or biopsy, may pose a risk for needle-tract tumor seeding.
References

