

# Concerns about renal mass biopsy

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I read with great interest the case report by Abourbih and colleagues.<sup>1</sup> In few last decades, the diagnosis of small renal masses (SRMs) has increased due to the routine use of imaging modalities.<sup>2</sup> Small renal masses represent 48% to 66% of all renal cell carcinomas and only 1% of them will spread to distant metastasis.<sup>3</sup> There is a need to biopsy SRMs to distinguish their behavior by radiologic appearance and to ultimately confirm the diagnosis.<sup>4</sup> In the past, the accuracy of the renal mass biopsy (RMB) was disappointing; now, due to improving techniques it is completely appropriate.<sup>4,5</sup> Indeed, new minimally invasive treatments for SRMs (such as cryotherapy, high intensity focused ultrasound and surveillance) made renal mass biopsy more important.<sup>5</sup> Also, in some patients suspicious for metastatic lesions in the kidney, we should perform renal mass biopsy before initiating systemic therapy.<sup>6</sup>

Leveridge and colleagues found that with a new method of computed tomography (CT)-guided renal mass biopsy, the possibility of complications (such as renal hematoma requiring intervention, gross hematuria, pneumothorax, arteriovenous fistula and needle tract seeding) are extremely rare (<1%).<sup>7</sup>

There are concerns about needle tract seeding. From the 6 reported cases on renal tract seeding after renal mass biopsy, transitional cell carcinoma was the pathology of the tumour in most of them – a contraindication of the renal mass biopsy.<sup>5</sup> Moreover, new needle introducers that separate samples from surrounding tissues reduces the probability of seeding and may be why there are no reported cases of seeding after 1993.<sup>5</sup>

Another concern in renal mass biopsies is the non-diagnostic sample, for which there are solutions:

1. Using a CT- or ultrasound-guided biopsy.
2. Using 18-gauge biopsy needles for taking at least 2 samples with 15 to 22 mm length.
3. Targeting peripheral zones of SRMs (to avoid central zone necrosis).
4. Inserting the tip of needle with a distance of 2 to 3 mm of outer margin for taking samples from tumour capsule.<sup>8</sup>

Renal mass biopsies can now be recommended for to diagnose, survey and follow-up SRMs and even it might be able to predict the prognosis of these tumours.

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