

# Efficacy and Safety of CT-guided Microwave Ablation in Patients with Localized Small Renal Masses



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Urology

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## Introduction

- Increased utilization of abdominal imaging has resulted in ↑ rates of incidental detection and subsequent intervention for small renal masses (SRMs), defined as <3 cm
- CT-guided microwave ablation (MWA) has repeatedly proven to be an efficient, less invasive treatment option for these incidentally found SRMs, even though less researched compared to other ablative techniques

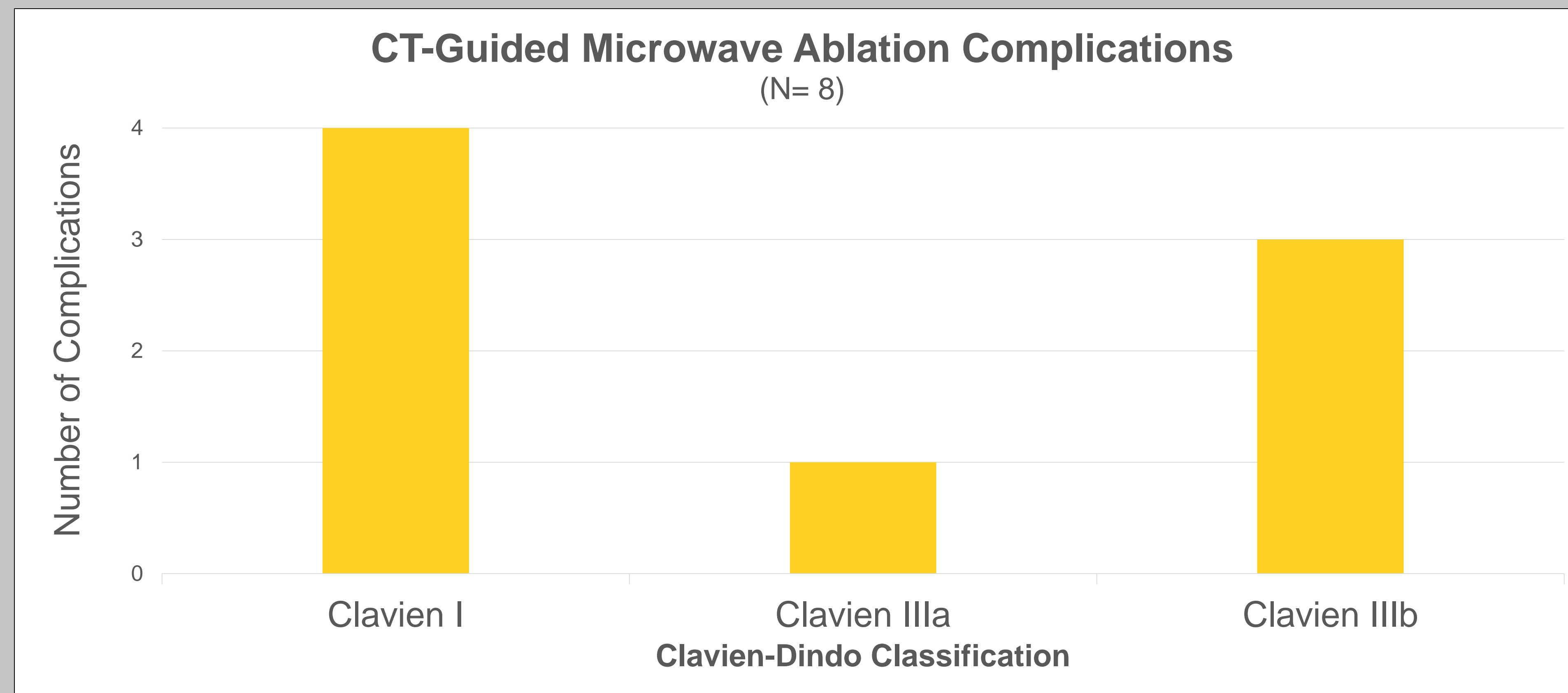
## Objective

- Primary aim: to clarify the safety and efficacy of CT-guided microwave ablation

## Methods

- Conducted retrospective chart review of patients within the LSU Health Sciences network who presented with evidence of renal mass on imaging and subsequently underwent same day renal mass biopsy (RMB) with or without CT-guided MWA between years of 2015 and 2022

## Results



- Of the **262** patients who underwent RMB, **108** patients underwent CT-guided MWA and **7.41%** of them experienced complications
- 36.11%** of the ablated SRM had final pathology that was benign
- 92.39%** of patients with malignant SRM pathology experienced local recurrence with ablation

## Key Patient Characteristics

Median Age	74 (IQR 68- 79)
Sex	57.41% Male
Race	82.41% White, 11.11% Black 6.48% Other
Median Mass Size (cm)	2.50 (IQR 1.80- 2.90)

## Conclusion

- Our data support CT-guided MWA as a reasonable treatment option for SRMs
- Evidence shows MWA is safe, with a major complication rate of 3.7%
- Local recurrence rate after MWA was higher than what has historically been reported for other ablation modalities
- High proportion of SRMs in this study were benign. While MWA spared patients from more invasive treatment of non-malignant masses, work to limit overtreatment is still needed
- As AUA 2021 guidelines lack robust evidence for MWA, additional research should be conducted to characterize its utility in treatment

## References

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