# CLINICAL AND ONCOLOGICAL PROFILE OF PATIENTS UNDERGOING MICROWAVE ABLATION FOR RENAL NEOPLASMS AND SOLITARY KIDNEY: BEFORE AND AFTER TREATMENT.

Authors DO ROSÁRIO, R.M.S<sup>1</sup>; DOS SANTOS, G.A.S<sup>1</sup>

1. Universidade Federal do Amapá, Macapá, Amapá, Brasil



### INTRODUCTION

Renal neoplasms are on the rise globally, accounting for 3% of malignancies in adults. In patients with a single kidney, a less invasive therapeutic approach is crucial to preserve renal function and quality of life. This study aims to describe the clinical and oncological profile of patients undergoing microwave thermal ablation. It is expected that this profile will include patients over 65 years old, with contraindications to more invasive methods, and tumors confined to the kidney, without lymph node or metastatic spread. Results would demonstrate complete tumor ablation and satisfactory survival rates, prioritizing nephron preservation.

### **METHODOLOGY**

A literature review was conducted using databases such as PubMed, Scielo, Virtual Health Library, and CAPES Journals, covering the period from 01/01/2013 to 31/01/2024. The search included studies in English and/or Portuguese on microwave ablation in patients with renal cell tumors in a single kidney. Keywords such as "Ablation Techniques," "Microwave Ablation," "Renal Neoplasms," "Renal Cell Carcinoma," and "Single Kidney" were used for a comprehensive search. The selected articles met the established inclusion criteria without title repetition.

### **RESULTS**

Renal neoplasms are on the rise globally, accounting for 3% of malignancies in adults. In patients with a single kidney, a less invasive therapeutic approach is crucial to preserve renal function and quality of life. This study aims to describe the clinical and oncological profile of patients undergoing microwave thermal ablation. It is expected that this profile will include patients over 65 years old, with contraindications to more invasive methods, and tumors confined to the kidney, without lymph node or metastatic spread. Results would demonstrate complete tumor ablation and satisfactory survival rates, prioritizing nephron preservation.

## CONCLUSION

The results detailed the initial hypothesis regarding tumor histology, location, and staging, renal function, and patient survival, as well as clarifying the demographic profile. This review can aid in choosing less invasive and safer therapeutic approaches for patients with similar characteristics. Study limitations are attributed to low sampling and the use of only free articles

# REFERENCES

- 1. MENG, H. et al. Efficacy and safety of CT-guided microwave ablation for stage T1a renal cell carcinoma in patients with a solitary kidney. \*International journal of hyperthermia\*, v. 38, n. 1, p. 691–695, 1 jan. 2021.
- 2. ACU, B.; KAPTAN, M. A.; ÖZTUNALI, Ç. An Overview of Image-Guided Percutaneous Microwave Ablation of Renal Cell Carcinoma. \*Journal of Urological Surgery\*, v. 5, n. 1, p. 1–3, 30 mar. 2018.
- 3. DVORAK, P. et al. Percutaneous radiofrequency and microwave ablation in the treatment of renal tumors 10 years of experience. \*Videosurgery and Other Miniinvasive Techniques/Wideochirurgia i Inne Techniki Mało Inwazyjne\*, v. 4, p. 394–402, 1 jan. 2017.
- 4. LIN, Y. et al. Percutaneous Microwave Ablation of Renal Cell Carcinoma Is Safe in Patients With a Solitary Kidney. \*Urology\*,~ v. 83, n. 2, p. 357–363, 1 fev. 2014.
- 5. GUO, R.-Q. et al. Correlations of RENAL, PADUA and NePhRO Scores With Complications and Outcomes in Patients After CT-Guided Microwave Ablation of Renal Tumors. \*PubMed\*, v. 28, n. 1, p. 92–99, 1 jan. 2022.



