

## **Abstract**

This project focuses on clear cell renal cell carcinoma (ccRCC) and the role that interventional radiology plays in treating this form of cancer. Clear cell renal cell carcinoma is the most common form of kidney cancer and is often diagnosed using diagnostic imaging such as CT scans, MRIs, and biopsies. This research includes information explaining what ccRCC is, its common symptoms, prognosis, methods of treatment, and what interventional radiology is. Some forms of treatment include surgery and immunotherapy. The main treatment of this project is minimally invasive ablation therapy. Techniques such as radiofrequency ablation, microwave ablation, and cryoablation use imaging guidance to treat tumors while limiting damage to surrounding healthy tissue. These procedures can be especially helpful for patients who may not be good candidates for surgery. Overall, this research highlights how interventional radiology is becoming an important part of cancer treatment and how minimally invasive procedures may improve a patient's outcome and survival rates.

*Keywords:* clear cell renal cell carcinoma, interventional radiology, ablation, kidney cancer