



Organization Accredited
by Joint Commission International



Certified
Medical travel



Centre of Excellence
For Bariatric & Metabolic Surgery

Member of:



مستشفى الزهراء دبي
AL ZAHRA HOSPITAL DUBAI
Care in Style رعاية راقية



Dr. Sadir Alrawi

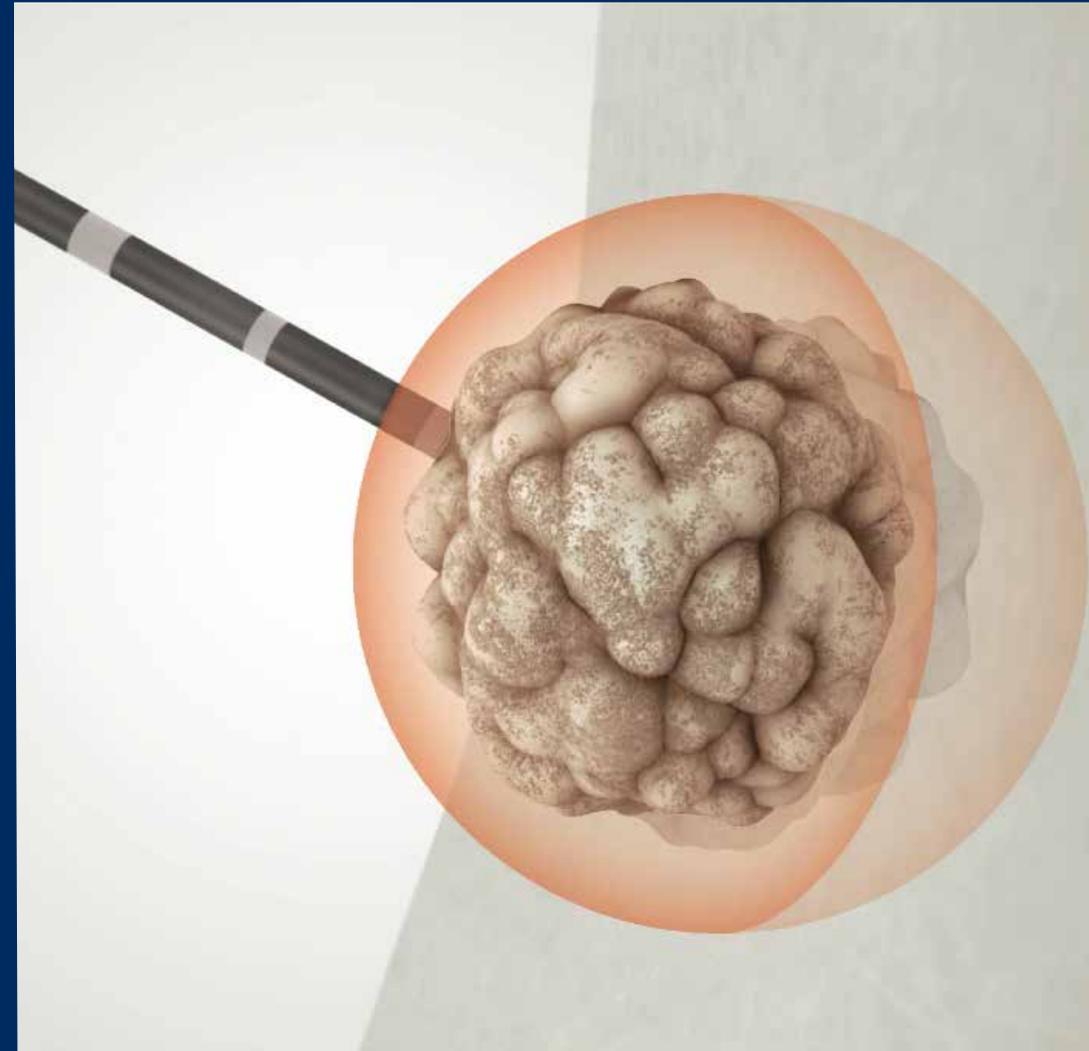
Director of Surgical Oncology Services



Dr. Huma Darr

Specialist General Surgery

MICROWAVE ABLATION IN DUBAI



P.O. Box. 124412, Al Barsha 1, Dubai, UAE
Tel: +971 4 378 6666, Fax: +971 4 378 6721

www.AZHD.ae

Microwave Ablation is becoming an accepted treatment modality for many tumors of the liver and lung. The surgical oncology team at Al Zahra Hospital Dubai Cancer Centre are the first in the Middle East region to treat cancers using the Microwave Ablation technique with **Emprint** technology.

What is microwave ablation?

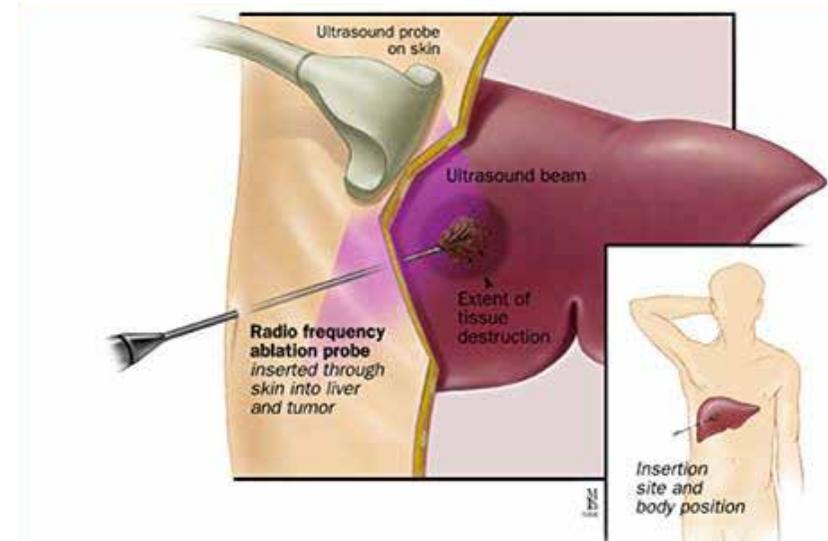
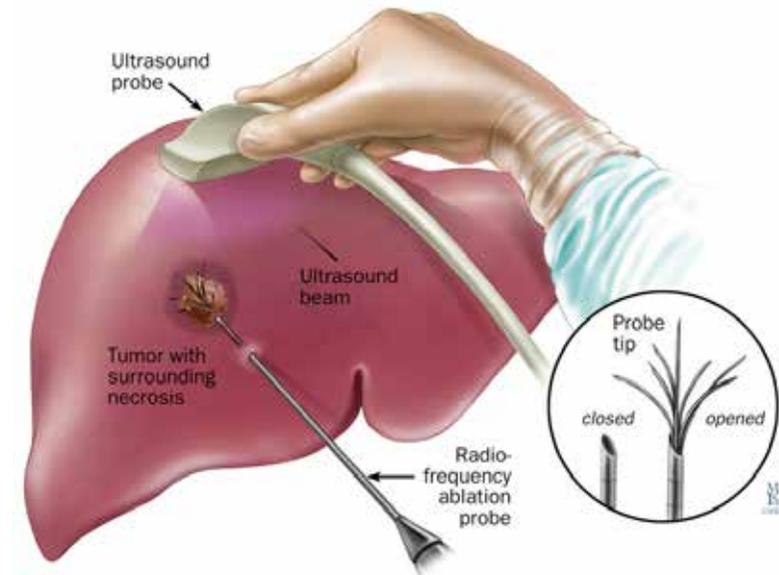
While some tumors can be removed surgically, the majority are inoperable and must be treated by alternative means. One such method is ablation (tissue destruction), a surgical procedure traditionally performed using a number of techniques including:

- RFA (Radiofrequency Ablation)
- Laser destruction
- Freezing (cryosurgery)
- Alcohol injection

A new technology, microwave ablation (MWA), destroys tumors using heat generated by microwave energy. Temperatures in excess of 60 °C are known to cause relatively instantaneous cell death, while temperatures from 60-50 °C will induce coagulation and cell death in a matter of minutes, depending upon temperature and previous thermal injury.

The procedure:

With microwave ablation, the surgeon inserts a small laparoscopic port or open incision to access the tumor. A CT scan or ultrasonic guidance is used to pinpoint the exact location of the tumor. A thin antenna, which emits microwaves, is then inserted into the tumor. The probe produces intense heat that ablates (destroys) tumor tissue, often within 10 minutes.



Using the Emprint™ Ablation System with Thermosphere™ Technology for predictable results

Predictability. It's the number one concern during ablation procedures. Until now. The surgical oncology team at Al Zahra Hospital Dubai Cancer Centre uses the Emprint™ ablation system powered by Thermosphere™ technology for its ablation procedures. This technology offers three kinds of spatial energy control - thermal, field and wavelength - to maintain predictable, spherical ablation zones across tissue types and throughout an ablation procedure despite tissue desiccation.



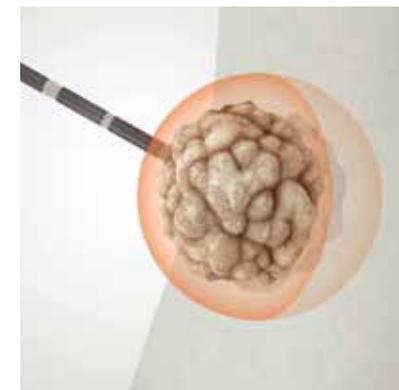
Use of this technology gives clinicians the confidence they need to deliver the best possible patient outcomes by enabling physicians to have more choice of approach, further simplifying needle placement and saving time in both planning and procedure.

Time (minutes)	Target Organ	Diameter (cm)	Height (cm)	Shape
2.5	Kidney	3.0	3.4	0.9
5	Liver	3.3	4.0	0.8
10	Liver	3.5	4.0	0.9
5	Lung	3.5	4.2	0.9
10	Lung	3.8	4.3	0.9
5	Muscle	5.7	5.0	1.2
10	Muscle	6.4	6.0	1.1

Advantages:

Microwave ablation has a number advantages when compared to traditional RFA, a standard method for ablating liver tumors. These include:

- Speed - Microwave ablation (MWA) is faster than RFA, destroying tumors more efficiently, and reducing the time patients remain under general anesthesia.
- Simultaneous Tumor Ablation - With MWA, surgeons can ablate multiple liver tumors at the same time.
- Larger Tumor Size - MWA can ablate larger tumors than are possible with RFA.
- The procedure can be repeated.
- You can resume your normal life in a few days.



Are there any risks?

Unfortunately there are always risks involved when undergoing any procedure. Some of the known risks in the case of lung cancer treatments include:

- A post-ablation syndrome occurs in about 1 of 4 patients. This is a flu-like illness which occurs 5-3 days after treatment.
- Air-trapped in the lining of the lung (pneumothorax)
- Bleeding from the needle inserted into the lung
- Lung infection after treatment.

Meanwhile risks in the case of treating liver cancers include:

- Abdominal pain
- Infection in the liver; and
- Bleeding into the chest cavity or abdomen.