EFFECT OF NURSING INSTRUCTIONS ON PATIENTS WITH LIVER TUMOR UNDERGOING RADIOFREQUENCY ABLATION

Thesis

Submitted for Partial Fulfillment of the Requirements of the Doctorate in Nursing Science Degree
(Medical- Surgical Nursing)

By

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Dedication

- *To the soul of my father*
- *To my lovely mother*
- *To all my friends*

I dedicate this work

Salwa Mahmoud

Acknowledgement

First and foremost, I feel always indebted to GOD, the most kind and the most merciful,

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Salwa Mahmoud

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List of Abbreviations

- **ASA:** American Society of Anesthesiologists
- **AV:** Atrio-Ventricular
- **BUN:** Blood Urea Nitrogen
- **CBC:** Complete Blood Count
- **CEA:** Carcino-Embryonic Antigen
- **CLD:** Chronic Liver Disease
- **Cm:** Centimeter
- **CPR:** Cardio-Pulmonary Resuscitation
- **CRC:** Colorectal Carcinoma
- **CT:** Computed Tomography
- **ECG:** Electrocardiogram
- **FDG:** Flurodexyglucose
- **GSV:** Great Saphenous Vein
- **HBV:** Hepatitis B Virus
- **HCV:** Hepatitis C Virus
- **HCC:** Hepatocellular Carcinoma
- **HRQOL:** Health-Related Quality of Life

- **IV:** Intravenous
- **Kg:** Kilogarm
- **KHz:** Kilo Hertz
- **L:** Liter
- **LITT:** Laser-Induced Thermal Therapy
- **MAR:** Medication Administration Record
- **MCT:** Microwave Coagulation Therapy
- **Mg:** milligram
- **MRI:** Magnetic Resonance Imaging
- **PEI:** Percutaneous Ethanol Injection
- **PET:** Positron Emission Tomography
- **PDT:** Photodynamic Therapy
- **PT:** Prothrombin Time
- **PTT:** Partial Prothrombin Time
- **RFA:** Radiofrequency Ablation
- **RN:** Registered Nurse
- **SRMs:** Small Renal Masses
- **SAR:** Specific Absorption Rate
- **USA:** United State of American
- **WHO:** World Health Organization

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INTRODUCTION

Liver cancer has a high prevalence among cancers in general and is the third most common cause of death worldwide. Liver cancer kills almost all patients who have it within a year. It was estimated that there were about 564,000 new cases of liver cancer worldwide, and a similar number of patients died as result of this disease **(Gervais & Arellano, 2011).**

HCC is a peculiar malignant tumor that is completely different from other solid tumors because of its high recurrence rate after curative treatment about 80% at 5 years. HCC arises in chronically damage liver, i.e., in patients with chronic hepatitis or liver cirrhosis caused by viral hepatitis B or C or with nonalcoholic steatohepatitis related cirrhosis **(Yang & Roberts, 2010).**

Radiofrequency ablation (RFA) is one of the emerging therapeutic modalities used for the minimally invasive treatment in the management of early–stage of HCC when liver transplantation or surgical resection are not suitable options. In addition, RFA is considered a viable alternate to surgery; for inoperable patients with limited hepatic metastasic disease, especially from colorectal cancer, and for patients deemed ineligible for surgical resection because of extent and location of the disease or concurrent medical conditions **(Choi & Lee, 2010).**

Radiofrequency Ablation has become the standard of care for the treatment of primary and metastasis tumors. The goal of this treatment is to produce necrosis by raising local tissue temperatures, while limiting the collateral damage to adjacent healthy tissue **(Chan; Chiu; Cho; Poon; Luk et al., 2010)** .

Regarding to advantages of RFA, it is safe, ease to use, effective and requires a minimal hospital stay or can be performed to an outpatient basis. Radiofrequency ablation has shown promise in treating selected solid tumors, particularly those involving the liver, kidney, lungs, rectum,