



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم

بسم الله الرحمن الرحيم



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جامعة عين شمس

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Evaluation of Nutritional Status As a prognostic Indicator for the Outcome in Liver Transplant Recipients

Thesis

*Submitted for partial fulfillment of 'Master degree' in
General Intensive Care*

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2020

ACKNOWLEDGEMENTS

First of all I will experience my deep gratefulness to our creator “Allah” who always helps and guides us.

*Then, I will have to express a great acknowledgement to the great professor **Prof. Mohamed Abd El-Khalik Mohamed Ali**, Professor of Anesthesiology, General Intensive Care Medicine and Pain Management, Faculty of Medicine, Ain Shams University for his great support, close supervision and continuous encouragement through the whole work; it is a great honor to work under his supervision. I am also deeply thanking **Dr. Randa Ali Shoukry**, Assistant Professor of Anesthesiology, General Intensive Care Medicine and Pain Management, Faculty of Medicine, Ain Shams University for her continuous thinking, working, advising and following up of this work to be on the correct way. Then, I'm deeply indebted to **Dr. Dalia Fahmy Emam**, lecturer of Anesthesiology, General Intensive Care Medicine and Pain Management, Faculty of Medicine, Ain Shams University for her kind help, guidance, useful advices, valuable suggestions, continuous encouragement and support all through my work. Also, I will provide my sincere thanks to **Dr. Eman Ibrahim El-Desoki Mahmoud**, lecturer of General Intensive Care, National Hepatology and Tropical Medicine Research Institute, Cairo for all her guidance, encouragement, teaching and help during all my development in medical and research field.*

Finally, I would deeply thank my dear family whom through their great help did I finish my work

Mohamed Ibrahim Ibrahim Akp El-bab

2020

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List of Abbreviations

| | |
|---------------------|---|
| AIDS | Acquired Immunodeficiency Syndrome |
| ALT | Alanine Transaminase |
| AST | Aspartate Transferase |
| BCM | Body Cell Mass |
| BIA | Bioelectric Impedance Analysis |
| BMD | Bone Mineral Density |
| BMI | Body Mass Index |
| BUN | Blood Urea Nitrogen |
| CD | Cluster of Differentiation |
| CLD | Chronic Liver Disease |
| CPP | Central Perfusion Pressure |
| CRP | C Reactive Protein |
| D. bilirubin | Direct bilirubin |
| DEXA | Dual-Energy X-ray Absorptiometry |
| DKA | Diabetic Keto-Acidosis |
| DM | Diabetes Mellitus |
| ESLD | End Stage Liver Disease |
| FFM | Fat Free Mass |
| GBWR | Graft-to-Body Weight Ratio |
| GI | Gastro Intestinal |
| GW | Graft's Weight |
| HAT | Hepatic Artery Thrombosis |
| HCC | Hepato-Cellular Carcinoma |
| HDL | High Density Lipo-proteins |
| HIV | Human Immunodeficiency Virus |
| HS | Highly Significant |
| HTN | Hypertension |
| ICP | Intra Cranial Pressure |
| ICU | Intensive Care Unit |

| | |
|----------------|--|
| IGF-1 | Insulin-like Growth Factor-1 |
| IL-10 | Inter-Leukin 10 |
| INR | International Normalized Ratio |
| IV | Intra-Venous |
| kg | Kilo Grams |
| LCAT | Lecithin-Cholesterol Acyl-Transferase |
| LDL | Low Density Lipo-proteins |
| LDLT | Living Donor Liver Transplantation |
| LST | Lean Soft Tissue |
| LT | Liver Transplantation |
| MAC | Mid Arm Circumference |
| MAMA | Mid Arm Muscle Area |
| MAMC | Mid Arm Muscle Circumference |
| MCT | Medium-Chain Triglycerides |
| MHC I | Major Histocompatibility Complex I |
| MV | Mechanical Ventilation |
| NK | Natural Killer cells |
| NKT | Natural Killer T cells |
| NS | Non-Significant |
| PCT | Procalcitonin |
| PEM | Protein-Energy Malnutrition |
| PHA | Phytohaem-Agglutinin |
| PPC | Postoperative Pulmonary Complications |
| PSC | Primary Sclerosing Cholangitis |
| P-value | Probability Value |
| PVT | Portal Vein Thrombosis |
| RBCs | Red Blood Cells |
| RBP | Retinol-Binding-Protein |
| RW | Recipient's Weight |
| S | Significant |
| SD | Standard Deviation |

| | |
|---------------------|--|
| SFSS | Small-For-Size Syndrome |
| SGA | Subjective Global Assessment |
| SOFA | Sequential Organ Failure Assessment |
| T. bilirubin | Total bilirubin |
| TBK | Total Body Potassium |
| TLC | Total Leucocytic Count |
| TNF | Tumour Necrosis Factor |
| TSF | Triceps Skin Fold |
| UBW | Usual Body Weight |

Introduction

Liver transplantation is a viable treatment option for end-stage liver disease and acute liver failure. The surgical procedure is very demanding and ranges from 4 to 18 hours depending on outcome. Numerous anastomoses and sutures, and many disconnections and reconnections of abdominal and hepatic tissue, must be made for the transplant to succeed, requiring an eligible recipient and a well-calibrated live or cadaveric donor match. By any standard, hepatic transplantation is a major surgical procedure (*Francesco, Alberto & Zanetto, 2016*).

Malnutrition is associated with increased morbidity and mortality rates in patients with chronic liver disease. Patients with cirrhosis who are malnourished have a higher rate of hepatic encephalopathy, infection, and variceal bleeding. They are also twice as likely to have refractory ascites. Numerous studies have found a correlation between poor nutritional status and a decreased survival rate. (*Alberino et al., 2001*).

Nutritional status has a prognostic implication in liver transplant candidates. Malnutrition before transplantation is associated with a higher rate of post-transplant complications, including infection and variceal bleeding. Patients who are severely malnourished require more blood products intra-operatively, stay on ventilatory support longer postoperatively, and have an increased length of hospital stay and a higher incidence of graft failure. Ultimately, patients with poor nutritional status before transplant surgery have a decreased survival rate after liver transplantation (*Selberg Oet al., 1997*).

Checking all patients with chronic liver disease for nutritional abnormalities can detect those at risk of developing preventable complications. Starting nutritional therapy during all phases of liver transplant has the possibility to decrease the risk of such complications (*Henkel and Buchman. 2005*).

Aim of the work

The purpose of this study was to determine the impact of nutritional status pre-liver transplant on recipients' course and the outcome post-transplant.