شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

بسم الله الرحمن الرحيم

HANAA ALY

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جامعة عين شمس

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قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

HANAA ALY

Prognostic Value of Platelet-To-Lymphocyte Ratio among Septic Patients with Acute Kidney Injury (A Prospective Cohort Study)

Thesis

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in **General Critical Care**

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Michael Safwat Karim

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Abb.	Full term
ABG	*Arterial Blood Gas*
AKI	*Acute Kidney Injury*
APACHE II score	*Acute Physiological and Chronic Health Evaluation II Score*
ARDS	*Acute Respiratory Distress syndrome*
ATN	*Acute Tubular Necrosis*
ATP	*Adenosine Triphosphate*
B cells	*Bone marrow- or bursa-derived cells*
BP	*Blood Pressure*
C. jejuni	*Campylobacter Jejuni*
CBC	*Complete Blood Count*
CD4	*Cluster of differentiation 4*
CKD	*Chronic Kidney Disease*
CNS	*Central Nervous System*
CRP	*C-Reactive Protein*
CSF	*Cerebro-Spinal Fluid*
CT scans	*Computed Tomography Scans*
CVP	*Central Venous Pressure*
CXR	*Chest X-ray*
DBP	*Diastolic Blood Pressure*
DIC	*Disseminated Intravascular Coagulation*
E. coli	*Escherichia Coli*
ECG	*Electro-Cardiography*
ED	*Emergency Department*
GCS	*Glasgow Coma Score*
GFR	*Glomerular Filtration Rate*
H. pylori	*Helicobacter Pylori*
H.influenza	*Haemophilus Influenza*
Hb	*Hemoglobin*

List of Abbreviations (Cont...)

Abb.	Full term
HIV	*Human Immunodeficiency Virus*
HR	*Heart Rate*
ICU	*Intensive Care Unit*
IL	*Interleukin*
IV	*Intravenous*
MAP	*Mean Arterial Blood Pressure*
MHC	*Major histocompatibility complex*
Min-Max	*Minimum-Maximum*
MRI scans	*Magnetic Resonance Imaging Scans*
NK	*Natural killer*
$PaCO_2$	*Partial Pressure of Carbon dioxide in Arterial Blood*
PaO_2	*Partial Pressure of Oxygen in Arterial Blood*
PLR	*Platelet To Lymphocyte Ratio*
RBCs	*Red Blood Cells*
RIFLE	*(Risk-Injury-Failure-Loss-End stage) consensus criteria to define the incidence of AKI*
RR	*Respiratory Rate*
S. typhi	*Salmonella Typhi*
SBP	*Systolic Blood Pressure*
$ScvO_2$	*Central Venous Oxygen Saturation*
SD	*Standard Deviation*
SIRS	*Systemic Inflammatory Response Syndrome*
SOFA	*Sequential Organ Failure Assessment*
T cells	*Thymus cells*
TNF	*Tumor Necrosis Factor*

List of Abbreviations (Cont...)

Abb.	Full term
UK	*United Kingdom*
US	*Ultra-Sonography*
UTI	*Urinary Tract Infection*
WBCs	*White Blood Cells*

INTRODUCTION

Kidney is one of the most affected organs by sepsis causing acute kidney injury (AKI).

Sepsis is a major cause of morbidity and mortality worldwide, and it results from a dysregulation of the systemic inflammatory response to infection ***(Vincent, 2015; Cohen et al., 2015).*** Despite significant advances in the pathophysiology and therapeutic strategies for sepsis ***(Angus and van der Poll, 2013)*** the mortality remains high, at 300 deaths per 100 000 people ***(Peake et al., 2014).***

An extremely complex systemic expression of inflammatory and anti-inflammatory response plays a critical role in the pathophysiological process of sepsis, which is strongly associated with an increased risk of mortality ***(Pierrakos and Vincent, 2010).*** Identifying patients who are at a high risk of poor outcomes, in the early stage of sepsis, is vital for timely and adequate intervention ***(Vincent et al., 2014).***

While a significant amount of effort has been put into investigating promising biomarkers, the challenge of identifying these at risk patients remains.

In recent years, studies have reported that platelets and lymphocytes play critical roles in the inflammatory process.

Therefore, the platelet-to-lymphocyte ratio (PLR)-a novel inflammatory factor-has received research attention recently, as it may act as an indicator of inflammation in a wide spectrum of diseases, such as myocardial infarction ***(Hudzik et al., 2017)***, acute kidney injury (AKI) ***(Zheng et al., 2017),*** hepatocellular carcinoma and non-small cell lung cancer ***(Toda et al., 2018).***

Aim of the Work

It is reasonable to speculate the presence of a potential relationship between PLR and mortality for sepsis. However, no investigation has been conducted. Therefore, in this study, we aimed to investigate the prognostic value of PLR among septic patients with acute kidney injury.