
“CORRELATION OF SERUM C-REACTIVE PROTEIN, D-LACTATE AND PROCALCITONIN IN PREDICTION OF BOWEL ISCHEMIA IN INTESTINAL OBSTRUCTION”

BY

DR. AISHWARYA C DEVARADDI



**SHRI
DHARMASTHALA
MANJUNATHESHWARA
UNIVERSITY**

Dissertation Submitted to the

Shri Dharmasthala Manjunatheshwara University, Dharwad, Karnataka,

In partial fulfillment

of the requirements for the award for the degree of

MASTER OF SURGERY

IN

GENERAL SURGERY

Under the Guidance of

DR. SURESH BADIGER

Professor and Unit Chief

Department of General Surgery



**DEPARTMENT OF GENERAL SURGERY
SDM COLLEGE OF MEDICAL SCIENCES AND HOSPITAL,
DHARWAD**

2020-2023

ABSTRACT

INTRODUCTION:

This study was conducted to help in better patient management, by evaluating various laboratory parameters in predicting bowel ischemia in patients with intestinal obstruction.

METHODOLOGY:

The proposed study was a hospital based cross-sectional study where we had included 65 patients aged between 18-80 years with acute intestinal obstruction based on the clinical presentation as well as X RAY/CT finding and of these, the patients who underwent exploratory laparotomy were included in the study. We had analyzed for all the laboratory parameters with special reference to CRP, Procalcitonin and the serum lactate.

RESULTS:

More number patients in the age group of 58-67 years i.e., 16 (24.6%) followed by 11 (16.9%) in the age group above 68 years. 32 (49.2%) were males and the remaining 33 (50.8%) were females. Pain abdomen in 64 (98.5%) of the 65 patients, followed by abdominal distension in 56 (83.1%) of the patients and vomiting in 54 (83.1%) of the patients. 30 out of 65 patients had undergone abdominal surgeries in past. Abdominal tenderness was the most common finding with 100% incidence followed by guarding seen in 27 (41.5%). 29 (44.6%) was the observed incidence of ischemic among our study population. Hemoglobin and platelet counts were lower in ischemic and had strong negative association with ischemic incidences. The average total leukocyte count, procalcitonin, CRP and lactates in ischemic cases were significantly raised than

non-ischemic. Also, the diagnostic parameters of all these inflammatory mediators had been increased significantly in ischemic cases than non-ischemic.

CONCLUSION:

D Lactate, Serum CRP and procalcitonin are useful Biomarkers in Prediction of Bowel Gangrene in Intestinal Obstruction and to be used in adjunction to the history and clinical findings.

KEY WORDS:

Bowel ischemia, Serum D lactate, CRP, Procalcitonin, Inflammatory marker