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بالرسالة صفحات
لم ترد بالأصل

Accuracy of Vaginal Fluid Lactate in Prediction of Spontaneous Onset of Labor in Women with Preterm Prelabor Rupture of Membranes

Thesis

Submitted for Partial Fulfillments of Master Degree
in ***Obstetrics and Gynecology***

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2020

سورة البقرة الآية: ٣٢

Acknowledgment

First and foremost, I feel always indebted to **ALLAH,** *the Most Kind and Most Merciful.*

I'd like to express my respectful thanks and profound gratitude to **Prof. Dr. Ahmed Mohamed KhairyMakled,** *Professor of Obstetrics & Gynecology - Faculty of Medicine- Ain Shams Universityfor his keen guidance, kind supervision, valuable advice and continuous encouragement, which made possible the completion of this work.*

I am also delighted to express my deepest gratitude and thanks to **Prof. Dr. Sherif Ahmed AbdelhamidAshoush,** *Professor of Obstetrics & Gynecology, Faculty of Medicine, Ain Shams University, for his kind care, continuous supervision, valuable instructions, constant help and great assistance throughout this work.*

I am deeply thankful to **Dr. RadwaRasheedyAli,** *Lecturer of Obstetrics & Gynecology, Faculty of Medicine, Ain Shams University, for her great help, active participation and guidance.*

I would like to express my hearty thanks to all my family for their support till this work was completed.

Last but not least my sincere thanks and appreciation to all patientsparticipated in this study.

Mennatallah Mohamed ElnemrAbdelkader

ABSTRACT

Objective: Preterm prelabor rupture of membranes (PPROM) affects up to 3% of all pregnancies and remains a leading cause of preterm delivery as it accounts for about one third of all preterm births. The interval from rupture of membranes to delivery is important in directing the need for specific interventions such as hospitilization, intensive monitoring, time of steroids administration. However, predicting the latency period remains a challenge in obstetric practice. The aim of this study is to evaluate the clinical usefulness of systemic inflammatory markers (including total leucocytic count (TLC) and C- reactive protein (CRP)) and cervical length (CL) as a novel predictive markers for the latency period within 48 hours after preterm prelabor rupture of membranes (PPROM) in multigravid women between 28- 34 weeks of gestation.

Study Design: This is a Prospective observational study to evaluate the clinical usefulness of systemic inflammatory markers (including total leucocytic count and CRP) and CL measurement in 52 singleton pregnancies with PPROM between 28-34 weeks in multigravid women. The independent predictability of significant characteristics for delivery within 48 hours was determined using multivariate logistic regression then, ROC curve was used to determine best cut off value of cervical length to determine latency of ≤ 48 hours after PPROM, Sensitivity, specificity, and predictive values were calculated.

Results: A total of 52 multigravid women with singleton pregnancy and history of PPROMs were included in the study, the number of women delivered ≤ 48 hours was 15, while 37 delivered after more than 48 hours, comparison between the two groups of women according to latency period after PPROM was performed using Student t-test and no difference was found regarding Age, body mass index (BMI) and haemoglobin concentration. However significant difference was noted between the two groups regarding cervical length, TLC and CRP, using Student t-test for cervical length and Mann-Whitney test for other parameters. Then univariate and multivariate regression analysis for the association between significant variables and spontaneous onset of labor within the first 48 hours after PPROMs were performed considering that All variables with $p<0.05$ was included in the multivariate and that Statistically significant values at $p \leq 0.05$, Only the association between cervical length was noted and that cervical length measurement is more superior than serum markers in prediction of latency period after PPROM. So a ROC curve was performed to determine the accurate cut off value of cervical length measurement that can predict latency period after PPROM within 48 hours and detected a cut-off ≤2.5 cm (95% CI 0.61 – 0.859) for predicting latency period ≤ 48 hours, sensitivity of 86.67%, specificity of 45.95, Positive predictive value (PPV) of 45.95% and negative predictive value (NPV) of 89.5%.

Conclusion: Cervical length measurement with a cut-off value of ≤ 2.5 cm has a superior role over systemic inflammatory markers (TLC and CRP) in prediction of latency period for the next 48 hours after PPROM in multigravid women between 28- 34 weeks of gestation.

Keywords: Cervical length; CRP; TLC; preterm labor; PPROM; Multigravid.

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List of Abbreviations

Abb.	Full term
ACOG	*American college of obstetrics and gynaecology*
AF	*Amniotic fluid*
AFI	*Amniotic fluid index*
AUC	*Area under the curve*
BMI	*Body mass index*
CI	*Confidence interval*
CRP	*C-Reactive protein*
E coli	*Escherichia coli*
GBS	*Group B streptococci*
IGFBP-1	*Insulin-like growth factor-binding protein 1*
IM	*Intramuscular*
IV	*Intravenous*
LOD	*lactate oxidase*
MMP	*Matrix metalloproteinases*
NICU	*Neonatal intensive care unit*
OR	*Odd's ratio*
PAMG-1	*Placental alpha microglobulin-1*
PAP	*P- aminophenazone*
PPROM	*Preterm prelabor rupture of membranes*
PTL	*preterm labor*
RDS	*Respiratory distress syndrome*
ROC	*Receiver operating curve*
ROM	*Rupture of membranes*
sTLR2	*Soluble toll like receptor two*
UTI	*Urinary tract infection*

PROTOCOL OF THESIS FOR PARTIAL FULFILMENT OFMASTER DEGREE IN OBSTETRICS AND GYNECOLOGY

Title of the Protocol:accuracy of vaginal fluid lactate in prediction of spontaneous onset of labor in women with preterm prelabor rupture of membranes

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2018