شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

بسم الله الرحمن الرحيم

HANAA ALY

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قسم

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Planned domiciliary versus hospital care for women with preterm prelabor rupture of the membranes (PPROM)

Thesis

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Contents

List of Abbreviations

ACOG	:	American College of Obstetricians and Gynecologists
CO_2	:	Carbon dioxide
COVID-19	:	Coronavirus disease 2019
CRP	:	C-reactive protein
CSF	:	Cerebrospinal fluid
FiO_2	:	Fraction of inspired oxygen
GBS	:	Group A β-hemolytic streptococci
HMD	:	Hyaline membrane disease
IAI	:	Intra-amniotic infection
ICU	:	Intensive care unit
IVH	:	Intraventricular hemorrhage
MFMU	:	Maternal-Fetal Medicine Units
NICHD	:	National Institute of Child Health and Human Development
NICU	:	Neonatal intensive care unit
ORACLE	:	Overview of the Role of Antibiotics in Curtailing Labor and Early Delivery
PCAH	:	Prepartum care at home
PPROM	:	Preterm prelabor rupture of the membranes
PROM	:	Prelabor rupture of the membranes
RDS	:	Respiratory distress syndrome
RCOG	:	Royal College of Obstetricians and Gynecologists
SD	:	Standard deviation
TNF	:	Tumor necrosis factor

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Introduction

The prevalence of preterm prelabor rupture of the membranes (PPROM) at Ain Shams Maternity hospital ranged from 2.4% in 2011 to 4.7% in 2015 with the highest rate during 2013 (5.3%). The high rate of PPROM at Ain Shams Maternity hospital could be explained by the fact that it is a tertiary care level referral hospital. Only 4.3% of women presented with PPROM developed intra-amniotic infection. Regarding fetal outcome, 61.3% of infants developed a poor fetal outcome including; (fetal death and NICU admission), while 38.7% of infants had good fetal outcome (alive & well) **(Abouseif *et al.*, 2018).**

There is an international consensus that pregnancies affected by preterm prelabor rupture of the membranes (PPROM) represent a daily challenge for the obstetrician, and evidence-based guidelines should be available for the best management of such pregnancies. Evidence-based clinical practice guidelines represent a synthesis of literature and are designed to assist clinicians in making decisions regarding clinical practice **(Tsakiridis *et al.*, 2018).**

Premature prelabor rupture of the membranes (PROM) is the rupture of the fetal membranes before 37 weeks of gestation and before labor. The pathogenesis of spontaneous PPROM is not well understood; possible risk factors include previous preterm labor, previous PPROM, cervical insufficiency, smoking, multiple gestation, and antepartum bleeding **(Toukam *et al.*, 2019).**

Maternal complications of PPROM include infection, sepsis, preterm labor, and placental abruption. Fetal complications of PPROM include preterm delivery, a

non-reassuring fetal heart rate, umbilical cord prolapse and intrauterine fetal demise **(Graham and Bakaysa, 2019).**

PPROM management has two main goals: reducing fetal immaturity at birth and avoiding intra-amniotic infection. Corticosteroid therapy has decreased morbidity in infants born 2–7 days after PPROM. Antenatal antibiotics can prolong the latency period between PPROM and birth by reducing the risk of neonatal infection. However, optimal timing for delivery remains a challenge and is controversial **(Pasquier *et al.*, 2019).**

In 2014, a Cochrane meta-analysis included two articles suggested that there were few differences in maternal & fetal complications between domiciliary & hospital management modalities. Domiciliary care is as suitable as conventional hospitalization for the management of PPROM as shown by recent studies. The main obstacle is the important heterogeneity of the eligibility criteria in those studies and there is currently no consensus as to this. **(Petit *et al.*, 2018).**

The French recommendations evoked the possibility of domiciliary care management for selected women with PPROM, both the American College and the Royal College statements mention the lack of data to guide recommendations regarding hospital or outpatient care. **(Dussaux *et al.*, 2018).**

When the term PROM study group compared outcomes of expectant management; domiciliary group was more likely to develop intra-amniotic infection. In multiple logistic regression analyses, women managed at home had a higher risk of infection in their newborns and nulliparas managed at home were at increased risk of receiving antibiotics before delivery **(Duff & Patrick, 2018).**

Aim of the Work

The aim of this study is to compare the efficacy & safety of planned domiciliary versus hospital care for women with preterm prelabor rupture of the membranes (PPROM) on fetal, neonatal and maternal outcomes.

Chapter (I)

Complications of PPROM

PPROM is associated with Perinatal morbidity especially prematurity, perinatal mortality and significant maternal morbidity **(Oh *et al.*, 2019).**

Maternal Complications of PPROM

- ***Intra-amniotic infection:***

It's inflammation of the amnion and/or the chorion which is a histopathologic finding. This inflammation most commonly results from bacterial infection of the amniotic fluid, the fetal membranes, the placenta, and/or the uterus **(Oh *et al.*, 2019).**

The term "chorioamnionitis." Was historically used to describe infection of the chorion, amnion, or both but it's replaced nowadays by "intra-amniotic infection" (IAI) since infection often involves the amniotic fluid, fetus, umbilical cord, or placenta as well as the fetal membranes **(Tita *et al.*, 2017).**

The term "histologic chorioamnionitis" describes cases without the typical clinical or microbiological findings associated with acute infection secondary to sterile inflammation or use of insensitive microbiologic techniques **(Tita *et al.*, 2017).**

In 2015, a National Institute of Child Health and Human Development Workshop expert panel recommended use of the term “triple I” to address the heterogeneity of this disorder **(Hodges *et al.*, 2013).**