

# Comparative Study between Active Management and Conservative Management in Postterm Pregnancies

Thesis

Submitted for partial fulfilment of  
M.D. degree in  
Obstetrics and Gynaecology

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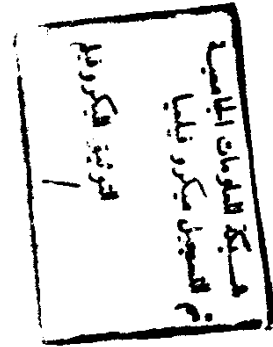
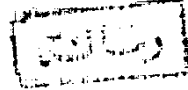
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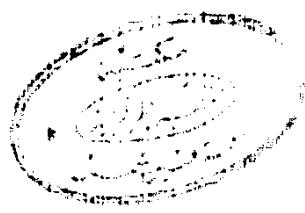
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Handwritten signature and date '4903' with a flourish.

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Handwritten notes in Arabic: 'تلقى إلى رتبة الدكتور' (Received to the rank of doctor) and 'في فبراير ١٩٩٤' (in February 1994).



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

{ وَقُلْ رَبُّ زِدْنِي عِلْمًا }

صَدَقَ اللَّهُ الْعَظِيمُ

[سوره طه الآية رقم ١١٤]



Now all other animals bring the time of pregnancy to an end in a uniform way; in other words, one single term of pregnancy is defined for each of them. But in the case of mankind alone of all animals the times are diverse; for pregnancy may be of 7 months' duration or of 8 months or of 9 and still more commonly of 10 (lunar) months, whilst some women go even into the eleventh month.

*ARISTOTLE, Works. Vol. II, 399 BC*

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### **Arabic summary**



## **INTRODUCTION**

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Prolonged pregnancy has been shown in many studies to be associated with increased fetal and neonatal morbidity and mortality rates. (Shime et al, 1984).

The increase in perinatal morbidity and mortality rates has been ascribed to an increasing incidence of uteroplacental insufficiency with advancing gestational age (Dyson et al, 1987).

It is now generally agreed that induction of labour at 42 weeks' gestation is indicated in patients with well established gestational age, however, the management of uncomplicated prolonged pregnancy in a patient with an unfavourable cervical examination is still controversial (Eden et al, 1987)

It is the responsibility of the obstetrician to identify the fetuses at increased risk and to prevent adverse outcomes. The diagnosed modalities utilised to assess fetal health in the postterm gestation that are currently in use include ultrasonographic evaluation, nonstress test, and biophysical scoring (Eden et al, 1989).

## **AIM OF THE WORK**

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The aim of this study is to compare between the two management options available; active management by induction of labour between 41 and 42 weeks' gestation, and conservative management by antepartum fetal surveillance. The other purpose of this study is to assess and try to define the role of different antepartum fetal surveillance tests in postterm pregnancy.

# **CHAPTER ONE**

## **REVIEW OF THE LITERATURE**

## ***1.1 Epidemiology of Postterm pregnancy***

### ***1.1.1 Definition***

The gestational period for a developing embryo varies depending on the species. In humans, the duration of pregnancy (E.D.D.= Expected date of delivery) is usually calculated from the first day of the last menstrual period (L.M.P.). The average E.D.D. is 280 days  $\pm$  14 days (40 $\pm$  2 weeks) (Hobart,1989). Pregnancy is considered prolonged or postterm when it exceeds 294 days or 42 weeks (Boyce et al,1976).

Definitions in the literature have ranged from 41 weeks (Rayburn & Chang, 1981) to 43 weeks (Beischer et al, 1969). Recently, the focus has been to consider a pregnancy postdate at the beginning of 41 weeks or 287 days from the last menstrual period (Sachs & Freidman, 1986).

The most recent international definition of postterm pregnancy comes from the International Federation of Obstetrics and Gynaecology (FIGO, 1986), which says it should be pregnancies lasting forty-two completed weeks or more, i.e. 294 days or more. This contradicts another recent FIGO statement, defining postterm pregnancy as "Pregnancy that is calculated to have proceeded beyond the end of the 42 nd week (FIGO, 1980) i.e.: more than 294 days, starting with day 295. This one day difference in the definitions has little importance in the clinical situation, but may count in the statistical comparison (Bakketeig and Bergsiø, 1990).

Another concern is about the terminology: The terms "Postdate Pregnancy" and "Postterm pregnancy" are synonymous and they are

defined as pregnancy exceeding 294 days from the last menstrual period. Meanwhile, the term "Prolonged pregnancy" is defined as pregnancy that exceeds 40 weeks (280 days) from the known time of ovulation or conception (Sims & Walther, 1989). The terms "Postmaturity", "Dysmaturity" and, "Placental dysfunction syndrome" all refer to a condition that results in infants with late onset wasting and manifestations of intrauterine nutritional deprivation, which are not unique to prolonged pregnancy (Sims & Walther, 1989). The term "Postmaturity syndrome" is the best expression to be used when one is referring to the postdate infant with this problem (Schneider et al, 1987; Sims & Walther, 1989).

### **1.1.2 Incidence**

The incidence of postdatism varies according to the definition used, the population studied, and more important to the dating criteria. The stricter the dating criteria used in confirming one's due date, the lower is the probability that a postterm pregnancy will be encountered (Phelan, 1989).

Most published studies agreed that 80% of births occurs between 38 and 42 weeks, 3.5 – 14.3% occur beyond 42 weeks and 4.4 – 7.3% beyond 43 weeks (Chamberlain et al, 1978; Sachs & Freidman, 1986; Bakketeig & Bergsjø, 1990).

It is important to note that of these postdate pregnancies, postmaturity occurs in only approximately 21% (Yeh & Read, 1982; Sims & Walther, 1989). Recently, Goldenberg (1989) reported that an increased reliance on sonar for age assignment resulted in a reduction