POSTDATISM ESSAY

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FOR MASTER DEGREE IN OBSTETRICS AND

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BY

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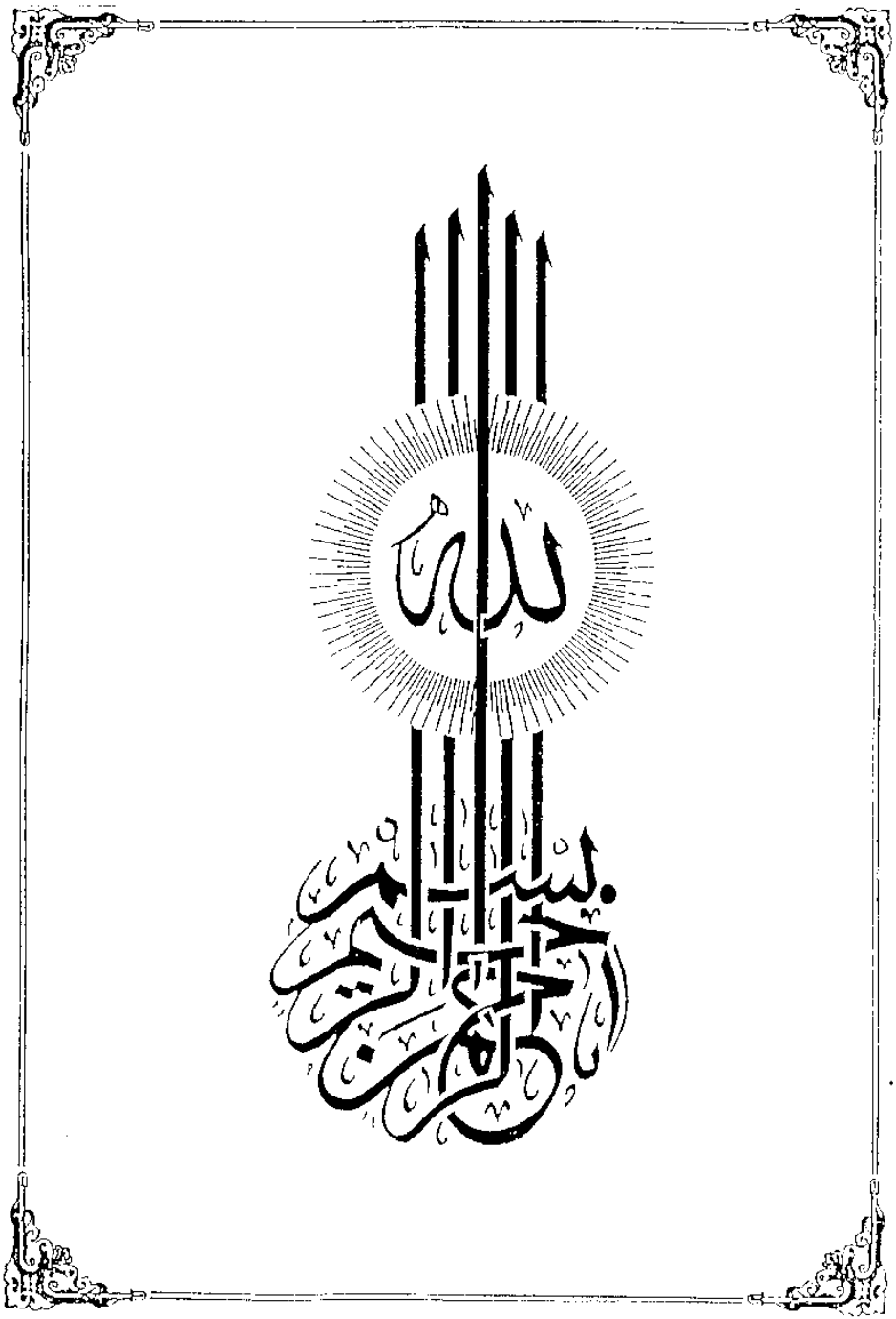

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INTRODUCTION

Pregnancy persisting beyond 42 weeks of the last normal menstrual period is considerd postterm and occurs in approximately 10% of all pregnancies is associated with an increase in perinatal mortality , meconium-stained liquor, fetal distress in labor and subsequent developmental and behavioral disturbances.

Although it is a common problem, there is no unanimity of opinion regarding optimal manegment,and with expectant manegement.
the clinical concern embraces the often asked question?is there a best test for assessing fetal well being in postdate pregnancy? and if expectant manegment is not acceptable,is delivery a reasonable alternative?.

That again depend on the patient clinical circumstances and encompasses the issus of whether induction of labor with or without cervical ripening or elective cesarean birth are reasnable under the patient,s circumstances.

Previous studies have reached little agreement as to when fetal jeopardy begins, how accurately the most endangerd fetuses can be established for the continuation of prolonged gestation.

Because of this uncertainity, many centres continue to follow a policy of uniform delivery when 42 weeks of gestation are reached.

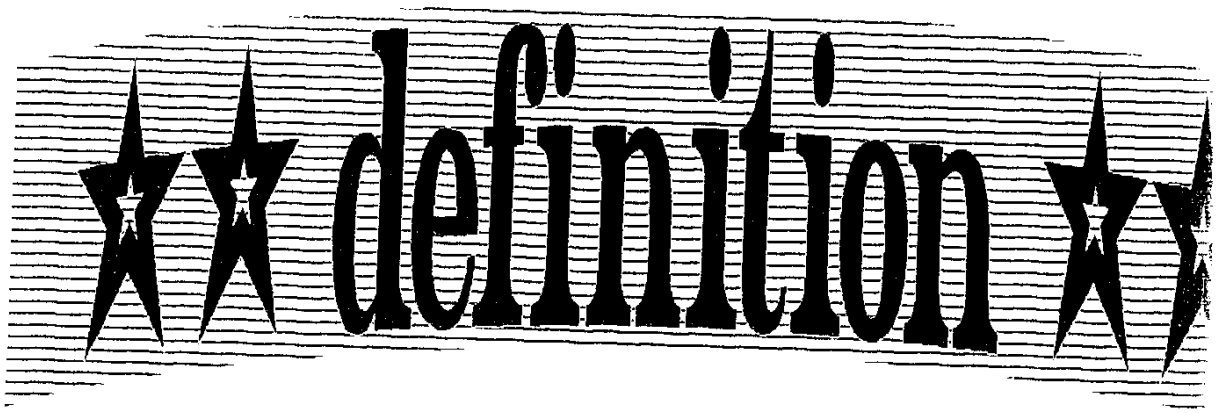
The potentially serious complication of postmaturity in some (10-20%) is seen as justification for the possibly unnecessary intervention in the remaining 80 to 90% of pregnancies.

Moreover, such a nonselective approach, while done to prevent perinatal morbidity and mortality, may create iatrogenic morbidity for the mother through increased incidence of cesarean section.

A more logical approach should consider both fetal and maternal prognostic factors in selecting the most appropriate manegment strategy.

Aim of the essay

The purpose of this essay is to discuss the problem of postdatism and to evaluate the benifits of ultrasound and doppler velocimetry which are used in the manegment of patient with postdate pregnancy.And how to monitor these fetuses?.



Definition

Pregnancy persisting beyond 42 weeks of the last normal menstrual period is considered postterm and occurs in approximately 10% of all pregnancies.

The postdate pregnancy has usually been defind on the basis of 42 compleated weeks from the first day of the last menstrual period (Ahn and Phelan, 1989).

However, definition in the literature have ranged from 41 to 43 compleated weeks or 287 to 301 days Beischer et al., 1969). recently, the focus has been to consider a pregnancy postdate at the end of 41 weeks or 287 days from the last menstrual period (Rayburn and Chang, 1981).

(Donald (1974) stated that if postmaturity is abnormal , there should be some evidence of abnormality either in the mother, child or in the process of labor and a diagnosis by dates alone is all too often not supported by any such concrete and abnormal finding .

So before diagnosing postmaturity with confidence, more than one criteria should be satisfied. Boe/ (1950) used three standerd:

1. pregnancy has exceeded 290 days.
2. fetal length exceeded 54 cm.
3. fetal weight exceeded 4.000 K. gm.

The term postmature, postmaturity syndrome and dysmaturity describe the neonate with manifestations of intrauterine nutritional deprivation,who also happens to be postdate (Pauerstein,1987).These features include long finger nails, absent lanugo and vernix, abundant scalp hair, desquamation of the skin with reddish colour absent (Ballantine and Browne, 1922; cliffod,1954).

These features are associated with decreased amniotic fluid volume and passage of meconium (Pauerstein,1987).

Modern authors believe it advisable to differentiate between true (Biological) postterm pregnancy. and prolonged (Chronologically lengthened) pregnancy.

So true postterm pregnancy is a pregnancy which lasts over new born presents signs of postmaturity and his life is at risk (fetal distress). These cases are typically charecterized by changes on the part of the placenta.

Prolonged or physiologically lengthened pregnancy is pregnancy which continues over 294 days and ends in the birth of a functionally mature neonate without any signs of postmaturity and risk for its life.

Such division of these two types of pregnancy is sensible and even necessary because the managment of the gestation and parturition in these two groups of women should be different (Chernukha,1982).

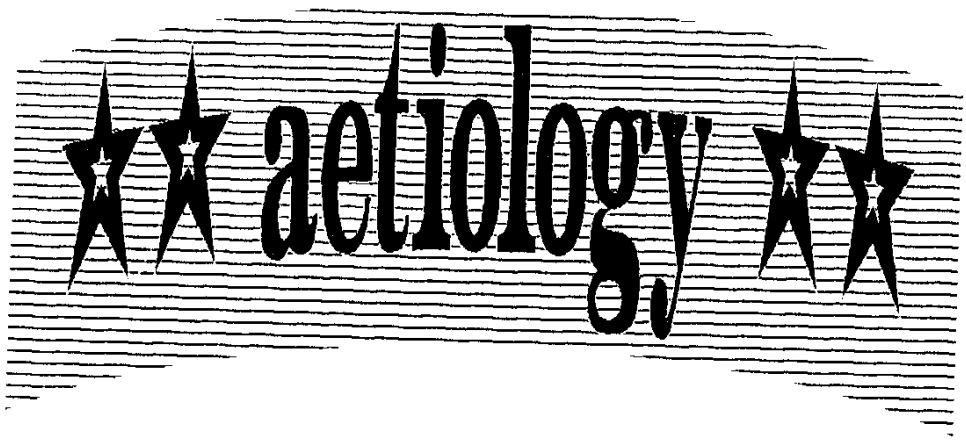
Incidence:

Although the incidence of prolonged pregnancy ranges from 3.5% to 17% of pregnancies (Beisher et al.,1969; vorherr,1975; Rayburn and Chang, 1981; Sachs and Friedman,1986) the actual incidence varies with the definition for postdate and the dating criteria.

Even though the actual incidence of postdate pregnancy is uncertain, the more accurate the estimate of gestational age with early ultrasound or known conception dates, the lower the frequency of prolonged gestation (Ahn and Phelan, 1989).

For instance,zwedling (1967) defined prolonged pregnancy after 43 compleated weeks and found the incidence of postdate to be 7.3% in contrast, sachs and friedman (1986). reported a 13% incidence after 42 weeks gestation and only 1% at 44 weeks or later. with known implantation dates, the natural incidence of postdate pregnancies is considerably less (Ahn and Phelan, 1989).

Of those patients considered postdates, only 20-43% have evidence of the postmaturity (Vorherr,1975: Homburg et al.,Yeh and Read, 1982).



AETIOLOGY:

Many postterm pregnancies are actually term pregnancies that can be traced back to an inaccurate menstrual history or 4 to 6 weeks of amenorrhea or delayed ovulation prior to conception; 10 to 15% of women of fertile age experience temporarily amenorrhea or anovulatory cycles (Nesbitt, 1955; Cope, 1959) and it has been suggested that more than that half of the postterm pregnancies are actually gravidas with normal duration of gestation (Schubling and Radzuweit, 1968).

Various theories have been advocated to explain the pathogenesis of the postdate pregnancies as the actual physiologic mechanism responsible for a prolonged pregnancy has not been elucidated and until the mechanisms for the initiation and maintenance of labor are defined more clearly the aetiology of the postdate pregnancy will probably remain obscure (Ahn Phelan,1989).

One theory suggests a role for the fetal pituitary adrenal axis as being necessary for the timely initiation of labor and that malformations of the fetal hypothalamus, pituitary (anencephaly) or adrenal gland (hypoplasia)generally result in postterm pregnancy if uncomplicated by hydramnios (Nakano, 1972).

Normally, fetal plasma corticosteroids levels rise prior to onset of labor and failure to elevate plasma cortisol in the fetus contributes to prolonged pregnancy whereas intra-amniotic administration of steroids in postterm pregnancy induces labor (Smith and Shearman, 1974; Nwosu et al., 1975; Nwosu et al., 1976).

Other theory suggests that prolongation of pregnancy may be secondary to failure of regulatory hormonal factors which stimulate uterine activity (progesterone). so, diminished production of progesterone by the placenta promotes labor (Csapo,1976) as does administration of prostaglandins E2 and F2cc.