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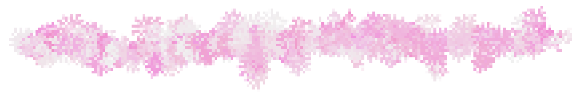

# Postterm Pregnancy

## Objectives:

- Identify the normal **duration** of gestation.
- List the **complications** of prolonged gestation.
- Describe the evaluation and evidence-based **management** options for prolonged gestation.

References: **433 Teamwork + Kaplan + Hacker.**

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# Postterm pregnancy

## -Postterm pregnancy:

- Is reaching or extending **beyond 42 weeks** of estimated gestational age.
- Late term pregnancy is between 41 0/7 weeks and 41 6/7 weeks of gestation.

## -Estimated gestational age:

- Is calculated 40 weeks past the **first day** of last menstrual period **-LMP-**.
- Most common cause of Postterm pregnancy is **Inaccurate estimation of gestational age** **(99% is MCQ!!!)**. + Also placental sulfatase deficiency can cause it.
- Pregnancies with **anencephalic** fetuses are the longest pregnancies reported.
- Perinatal mortality is **2 to 3 times higher** in these prolonged gestations.

# Complications of post-term pregnancy

## - Maternal Complications:

**Vaginal trauma and Cesarean section**, C-Sections increase the risk of:
**Infections**, **Bleeding**, **Thromboembolic events** and **Visceral injury**.

## - Fetal Complications:

### 1- Macrosomia:

Defined as an infant weight **> 4.5 kg**.

• Will **increase** the risk of **operative vaginal delivery**, **C-Section delivery** and **shoulder dystocia.**

• It occurs in 2-10% of post-term pregnancies.

### 2- Postmaturity syndrome:

Related to the aging and **infarction of the placenta**.

• Results in:

-**Decrease** **fetal subcutaneous fat, Vernix and Lanugo**.

-Long fingernails.

-**Dry** and peeling skin.

-Abundant hair.

• It occurs in 10-20% of post-term pregnancies.

### 3-Meconium aspiration syndrome: **pathophysiology: ANS maturity lead to pass of stool then fetus aspire.**

Results in:
-Severe **respiratory** distress.
-**Mechanical obstruction**.
-**Chemical pneumonitis**.

-Management of Meconium:
In **labor** > **Amnioinfusion**.
After the **head** is delivered > **suction** the fetal nose and pharynx.
After the **body** is delivered > **Laryngoscopic** visualization.

**4-Oligohydramnios:**
Fetus always try to protect blood flow to the **brain!!**

**-Decrease placental flow > Deprioritize blood to the kidney > Preserve blood to the brain > decrease urine production.**

**5-Intrauterine fetal demise:**
Increases after **41 weeks** of EGA.

## Interventions of post-term pregnancy:

– **Accurate estimation of LMP**, Use US to confirm the estimated date of delivery.
– **Membrane sweeping** to help induce labor. "Unfavorable cervix !!"
– **Antepartum Surveillance** Should be initiated at 41 EGA. "Dates unsure"
– **Induction of labor** should occur between 41 - 42 EGA. "Favorable cervix !!"

"Favorable cervix is dilated, effaced, soft, and anterior to mid position. Bishop score is >8."

# Case

A 35-year-old, G1P0 woman, presents to your office for a routine prenatal exam.
She is 5 days past her due date that was determined by her last menstrual period and a second trimester ultrasound. While reviewing her chart, you note that she has gained 32 pounds during this uncomplicated pregnancy with 1/2 pound weight gain since last week's visit. Her BP is 110/65. She has no glycosuria or proteinuria. The fundal height measures 38 cm and fetal heart tones are auscultated at 120 bpm in the left lower quadrant. The fetus has a cephalic presentation and an estimated weight of 8 lbs.
Just before you go into the room, your nurse pulls you to the side, and tells you, "She has a lot of questions!" Once you walk into the room, the patient expresses her disappointment that she has not had the baby yet. She assumed that she would be having the baby on her due date. She asks you about potential harm to her and the baby from going past her due date, and she would like to know her options.

## Questions

**1. What would you tell this patient is the normal duration of pregnancy and what is the usual time for the onset of spontaneous labor?**

– The **normal** duration of pregnancy is 280 days (40 0/7 weeks) from the first date of the last menstrual period.
**-Preterm** pregnancy is defined as a gestational age less than 37 0/7 weeks
-**Early Term** pregnancy is defined as a gestational between 37 0/7 weeks and 38 6/7 weeks
-**Full Term** pregnancy is defined as a gestational age between 39 0/7 weeks and 40 6/7 weeks
-**Late Term** pregnancy is defined as a gestational age between 41 0/7 weeks and 41 6/7 weeks
-**Post term** pregnancy is defined as a gestational age of 42 0/7 weeks or greater

-In the United States, approximately 12% of pregnancies deliver preterm.
-Approximately 80% of pregnancies are delivered at a term gestation (20% or less OF them delivered on EDD rest on term) .
-Postterm pregnancy is estimated to have an incidence of 6%.
-Accurate gestational age assignment with first trimester ultrasound results in a decreased incidence of post term pregnancy.

**2. What are the risks associated with postterm pregnancy?**

– Antenatal concerns:
• Macrosomia: estimated prevalence of 25% in prolonged pregnancy.[1]

[1] Macrosomia may cause an overstretching of uterus and leads to uterus atonia. (imp)

• Post maturity syndrome.
• Oligohydramnios.
• Perinatal death: rate increases steadily after 37 weeks, approaching 1 in 300 at 42 weeks.

– Intrapartum concerns:
• Labor dystocia.
• Infant birth trauma.
• Maternal perineal trauma.
• Cesarean delivery.
• Postpartum hemorrhage
• Meconium passage/

– Neonatal concerns:
• Meconium aspiration syndrome.
• Hypoglycemia.
• Hyperbilirubinemia.

### 3. What are the features of postmaturity syndrome?

– Although the true incidence of the fetal postmaturity syndrome is unknown, it has been estimated to occur in 10% of pregnancies between 41 and 43 weeks.
– The syndrome results from **placental insufficiency** due to aging and infarction.

– Typical features of postmaturity syndrome include:
• Loss of subcutaneous fat resulting in a long thin body.
• Long fingernails.
• Dry, peeling, wrinkled skin.
• Abundant hair.

– Postmature infants have an increased risk of perinatal mortality, as compared to other post term infants.

### 4. What management plan would be appropriate for this patient?

– Labor Induction:
• Appropriate at 41 0/7 weeks regardless of cervical status
• Is associated with a decreased risk of perinatal mortality, cesarean delivery, and cost.
• Pre-induction cervical ripening maybe required if the cervix is unfavorable.

– Expectant Management:
•Should include antenatal testing beginning between the 41 and 42 weeks.
•Induction is indicated if there is evidence of non-reassuring fetal testing.
•Expectant management should be pursued no longer than 43 weeks, and only with antepartum testing.