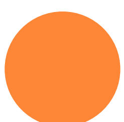
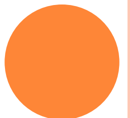
PRETERM LABOUR

Mrs Shailaja Mathews



INTRODUTION

- Labor and delivery between 28 – 36^{+6} weeks
- 5%-10% be the leading cause of perinatal morbidity and mortality
- Survival rates have increased and morbidity has decreased because of technologic advances

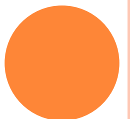


Incidence (6%-10%)

- Spontaneous : 40-50%
- PROM : 25-40%
- Obstetrically indicated : 20-25%

Definition (WHO)

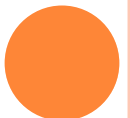
- Preterm labor is the presence of contractions of sufficient strength and frequency to effect progressive effacement and dilatation of the cervix between 20 and 37 weeks' gestation



PRETERM LABOUR

- **Definition :**

Preterm labor is defined as regular painful contractions of the uterus associated with effacement and dilatation of the cervix occurring after 20 weeks of gestation and before 37 weeks of gestation.

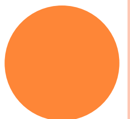


ETIOLOGY

- In 20 to 40 % cases no reason but there are many risk factors which are associated with preterm labour.

- **DEMOGRAPHYC RISK FACTORS:**

1. Age
2. Low Socioeconomic condition- low education
3. Small stature : Ht < 145 - underweight



CAUSES OF PRETERM LABOUR

Behavioural factors :

1. **Maternal habits - Mental stress-Poor nutrition**
2. **Excessive Physical activity - Coitus in last trimester**

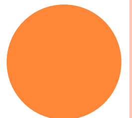
Obstetric Risk Factors:

Past history: H/ O preterm labor, second trimester abortion

Obstetrical Factors: APH, Uterine anomalies, PRM

Fetal Causes: IUFD, Fetal anomalies,Malpresentation

Congenital fetal anomalies



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Maternal Systemic Diseases:

1. Asymptomatic bacteriuria and acute renal infections
2. Hypertensive disorders
3. Maternal diabetes
4. Immunological disorder, Maternal infections.
5. Febrile illnesses such as malaria

Iatrogenic:

1. Elective premature induction
2. Induction with wrong estimation of gestational age.

Miscellaneous:

Trauma ,Drugs like quinine, Abdominal surgery.

Cervical disease

Uterine overdistention

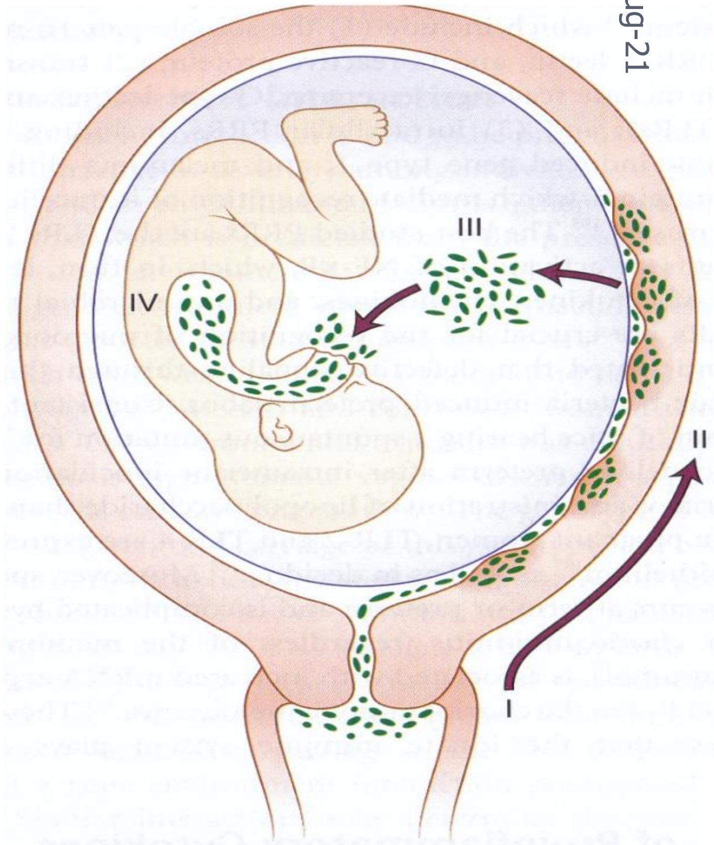
Abnormal allograft reaction

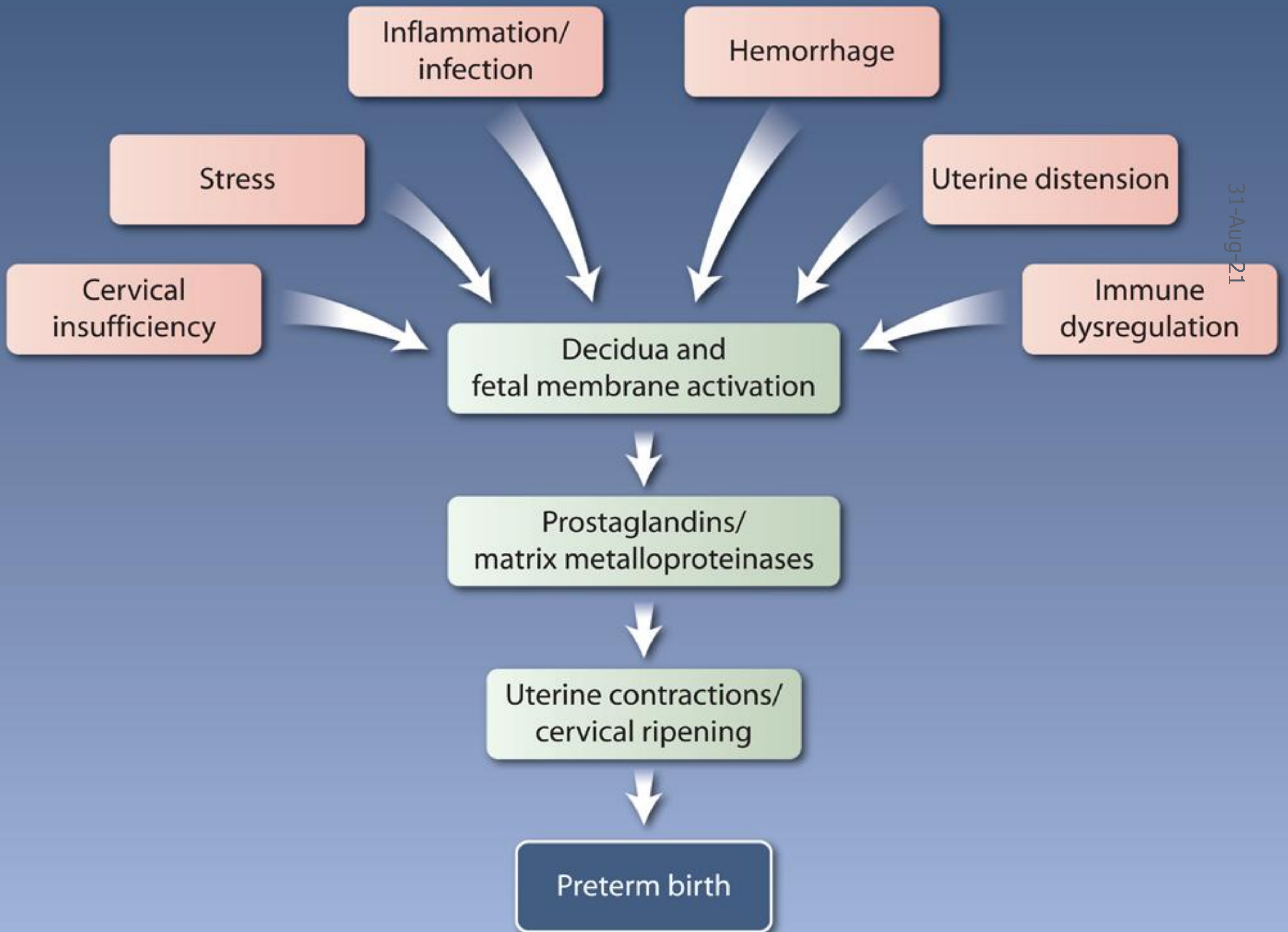
Uterine Ischemia + hemorrhage

Allergic phenomena

Infection

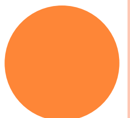
Endocrine disorder




Inflammation/
infection
Hemorrhage
Stress
Uterine distension
Cervical
insufficiency
Immune
dysregulation
Decidua and
fetal membrane activation
Prostaglandins/
matrix metalloproteinases
Uterine contractions/
cervical ripening
Preterm birth

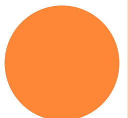
Risk Factors

- Previous preterm delivery
- Low socioeconomic status
- Maternal age <18 years or >40 years
- Preterm premature rupture of the membranes
- Multiple gestation
- Maternal history of one or more spontaneous
- second-trimester abortions
- Maternal complications (medical or obstetric)
- Lack of prenatal care



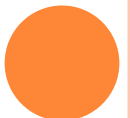
Risk Factors

- Uterine causes
  - Myomata (particularly submucosal or subplacental)
  - Uterine septum
  - Bicornuate uterus
  - Cervical incompetence
- Abnormal placentation



Signs of preterm labor-

- Menstrual like cramps
- Low dull backache
- Abdominal cramps
- Feeling of pelvic pressure or heaviness in vagina
- Increase/change in vaginal discharge:glairy mucoid or bloody
- Fluid leaking per vagina
- Uterine contraction less than 10 minutes apart, even if painless

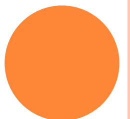


DIAGNOSIS

P.V. examination: Cervical dilatation 2 cm.

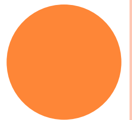
Cervical effacement 80% or more.

- Threatened preterm labor : formation of lower segment but no cervical changes.



MANAGEMENT FOR NON PROGRESSIVE PRETERM LABOUR

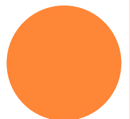
- **Admission , History taking , Clinical assessment Diagnosis of gestational age., diagnosis of preterm labor.**
- **Bed rest in Lt. lateral position.**
- **Mild sedative to relive anxiety.(Inj. Pethedine 50 to 100 mg.)**



- **Hydration for dehydrated patient.(500 ml DNS or Ringer is used.)**

- **Investigations Blood for Haemogram, CBC, urine for R & C.S. Vaginal and Cervical swab, E.C.G.**

- **Administration of drugs : Tocolysis, Steroids, Antibiotics.**



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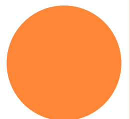
- **Tocolytic Therapy: Betamemitics are more commonly used . They are Isoxusprine, retrodin , turbutaline, Salbutamol.**
- **Action : they bind to Beta -2 receptors which are present in myometrium and relaxes the smooth muscles. Relives the uterine muscle contraction.**
- **Dosage : Isoxuprine - IV- 0.2 mg / min increased up to 0.8 mg / min for 24 hours then IM 10 mg every 6 hourly up to 37 weeks.**



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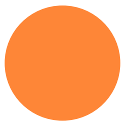
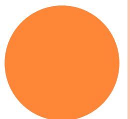
- **Terbutalin- IV- 5 micro gram/ min increased every 10 min till the contraction stops or max reach to 30 micro gram.**
- **Oral- 5mg 4 hourly for 24 hours than 2.5 to 5 mg 6 hourly .**
- **SC – 0.25 mg repeated hourly until adequate tocholysis occurs.**



- **Retrodine- IV - 50 micro gram (0.05mg) / min. every 10 to 15 minutes until contraction have ceased or side effects appear(pulse rate . 130 min, hypotension).**
- **Do not exceed o.35 mg per minute.**
- **Oral- 10 mg 30 minutes before stopping I.V medication 20 mg 4 hourly (max dose of 120mg)**



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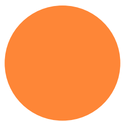
- Corticosteroid Therapy : Maternal corticosteroid therapy to inhance the fetal lung maturity & prevent intra -ventricular hemorrhage. It may flaring an existing infection. Drugs used are 24 mg dexamithazone 36 to 48 hours before delivery in divided doses or single dose.
- Antibiotics are given (Metronidazole or Local vaginal application of metronidazole cream or Clindamycin cream application)



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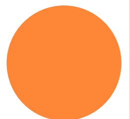
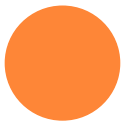
- **MgSo4- 4 mg loading dose diluted with 100ml NS administered in 20 min, then 2gm / hr for 12 to 24 hours.**
- **Nifidipine - 30 mg orally followed by 20 mg qid on first day then 20 mg tds.**



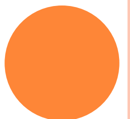
- **Indomithacin -** **Loading dose 100 -200 mg rectally or 50 -100 mg orally followed by 25 to 50 mg 4to 6 hourly. It is only useful in polyhydramnios with preterm labor.**

- **Nitric oxide donors –** **Nitroglycerine patch of 10 -20 mg are applied on abdomen every 24 hours.**



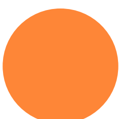
MANAGEMENT OF PROGRESSIVE PRETERM LABOUR

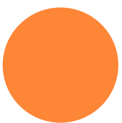
- Counselling aim for vaginal delivery.
- Vaginal delivery or C.S.
- Arrange for neonatal care .
- Search for causes of fetal abnormalities , multiple pregnancy infection.



WHAT ARE THE SPECIAL NEEDS OF PRETERM BABIES

- NICU
  - Breathe
  - Eat
  - Keep warm
  - Other health problem





Thank you!