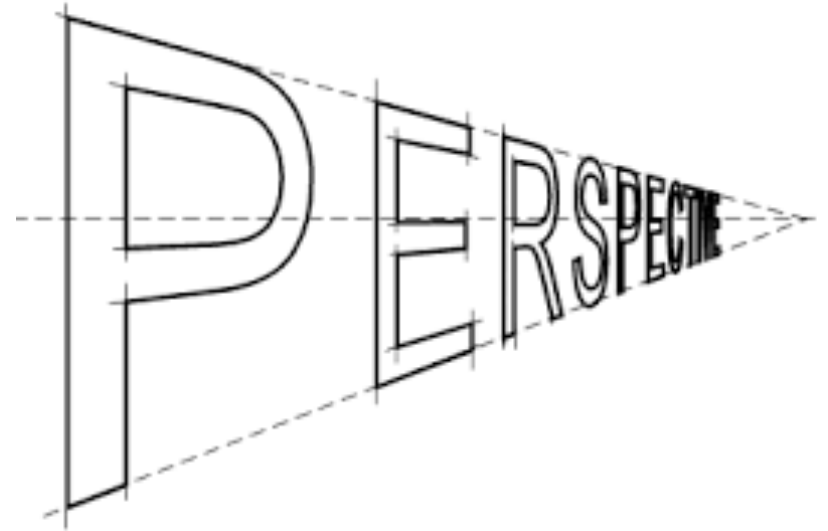


PRETERM DELIVERY



PATRICK DUFF, M.D.

PRETERM DELIVERY



PRETERM DELIVERY OVERVIEW



- Etiology
- Neonatal complications
- Treatment

PRETERM DELIVERY



- Definition - labor prior to 37 weeks' gestation
- Frequency - 12 %
- 500,000 preterm births annually
- 30% of these births are < 34 weeks

PRETERM DELIVERY IMPACT

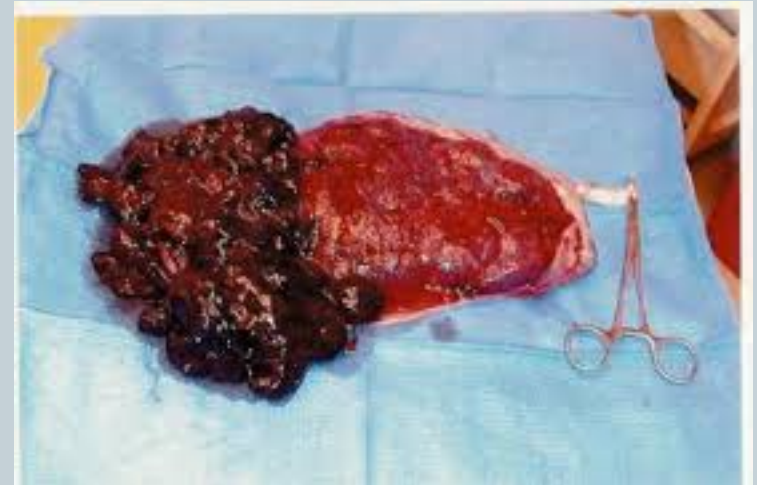
- When anomalies incompatible with life are excluded, complications of preterm birth are responsible for almost 75% of all neonatal deaths



PRETERM DELIVERY ETIOLOGY



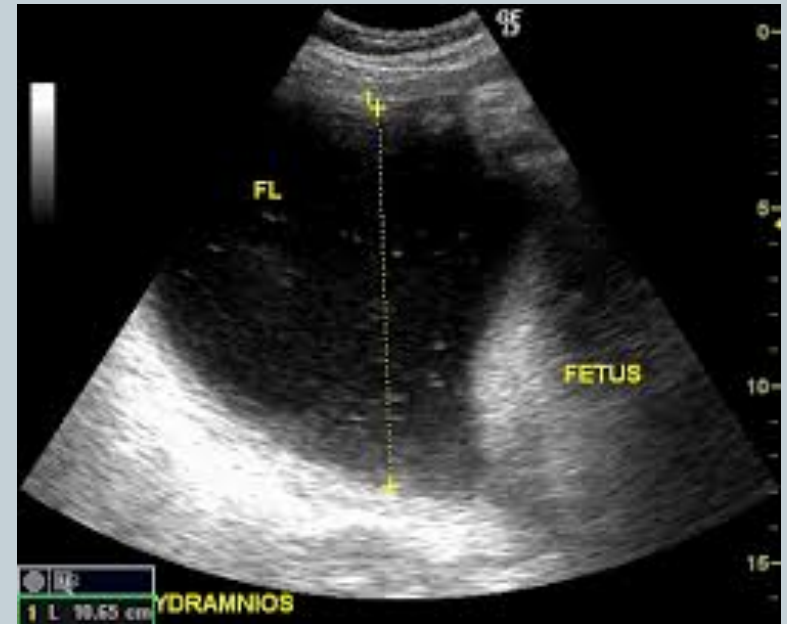
- **PROM – single most important etiology**
- Abruptio placentae
- Placenta previa
- Uterine or cervical anomaly



PRETERM DELIVERY ETIOLOGY



- Fetal anomaly
- Polyhydramnios
- Systemic disease
- Dehydration



PRETERM DELIVERY ETIOLOGY

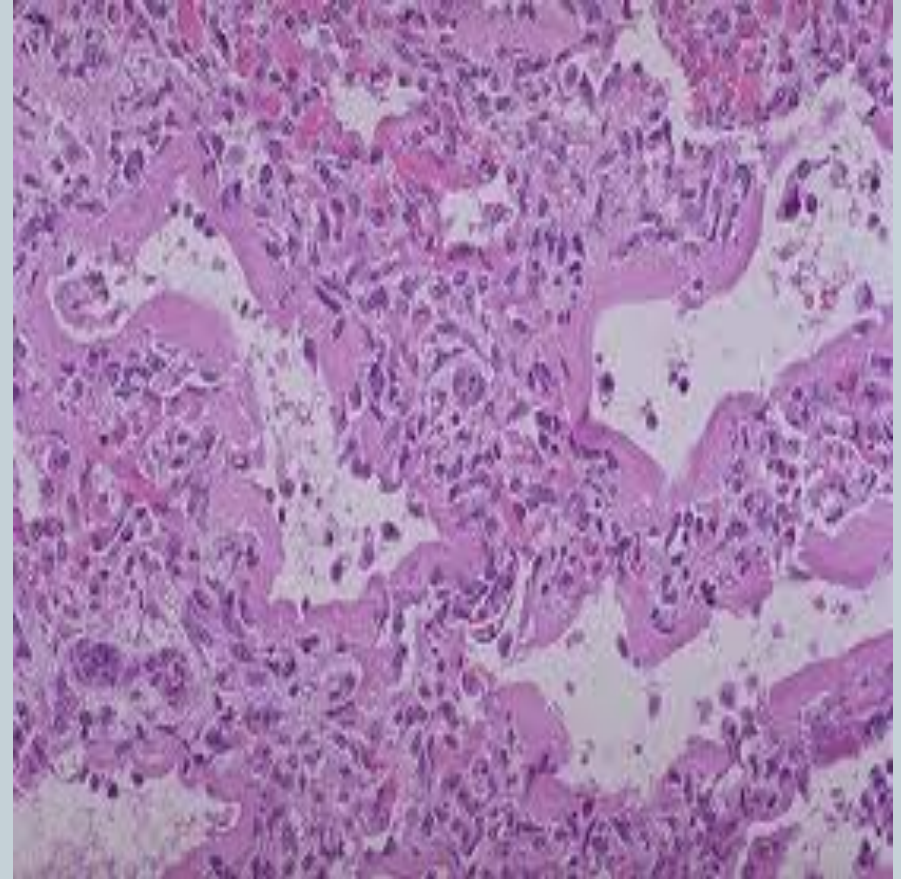


- Multiple gestation
- Infection – lower and upper genital tract and systemic
- Trauma
- Idiopathic



NEONATAL COMPLICATIONS OF PREMATURITY

- HMD
- IVH
- NEC
- Sepsis
 - GBS
 - *E. coli*



NEONATAL COMPLICATIONS OF PREMATURITY



- Metabolic derangements
- Thermal instability
- Renal dysfunction
- PDA
- Apnea and bradycardia

PRETERM LABOR EVALUATION

- Clinical examination
- Cervical examination
 - Digital and sonographic
- Uterine monitoring
- Ultrasound



PRETERM LABOR EVALUATION



TEST	PURPOSE
CBC	WBC → evaluate for infection HCT → evaluate for blood loss
Coagulation tests	Identify abruption

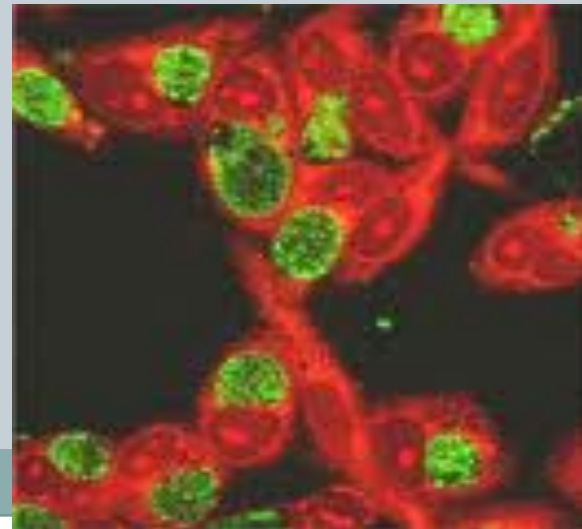
PRETERM LABOR EVALUATION



TEST	PURPOSE
Serology	Evaluate for infection
Urine culture	Identify UTI

PRETERM LABOR EVALUATION

- CXR
- PCR for gonorrhea and chlamydia
- Saline microscopy for BV
- Culture for GBS
- Amniocentesis
 - Rule out infection
 - Assess FLM



MANAGEMENT OF PRETERM LABOR



- Treat underlying disorder
- Assess fetal well being
 - Ultrasound
 - FHR monitoring
 - Doppler
- Evaluate for tocolysis

MANAGEMENT OF PRETERM LABOR STEROIDS



- **Betamethasone**
 - 12 mg i.m. q 24h x 2 doses
- **Dexamethasone**
 - 6 mg i.m. q 12h x 4 doses
- **Effects**
 - Decrease in RDS
 - Decrease in IVH
 - Decrease in NEC

MANAGEMENT OF PRETERM LABOR

ANTIBIOTICS



INFECTION	TREATMENT
Gonorrhoea	Ceftriaxone, 250 mg i.m. plus Azithromycin, 1000 mg p.o.
Chlamydia	Azithromycin, 1000 mg p.o.

MANAGEMENT OF PRETERM LABOR

ANTIBIOTICS



INFECTION	TREATMENT
Bacterial vaginosis	Metronidazole, 500 mg p.o. BID x 7 d Metronidazole, 2 grams p.o. x 1
GBS	Ampicillin, 2 g x 1, then 1 g Q 4h until delivery
Chorioamnionitis	Ampicillin (2 g Q 6h) plus gentamicin (1.5 mg/kg/day)

TOCOLYTICS

TERBUTALINE



- Mode of administration – SQ, PO, or IV
- Dose - 0.25 mg SQ and 5 mg PO
- Adverse effects - cardiovascular and metabolic
 - Rarely used today because of these side effects

TOCOLYTICS

MAGNESIUM SULFATE



- Mode of administration - IV
- Dose – 4 to 6 g load plus 2-4g/h, titrated to effect
- Provides tocolysis and neuroprotection
- Adverse effects
 - Muscle weakness
 - Visual changes
 - Hypocalcemia

TOCOLYTICS

INDOMETHACIN



- Mode of administration - PR or PO
- Dose - 25 mg Q 6h
- Adverse effects
 - Stricture of DA
 - Oligohydramnios
- Should not be used after 32 weeks or for > 48 h

TOCOLYTICS

NIFEDIPINE



- Mode of administration - oral
- Dose - 10 mg Q 20 minutes x 3, then 10 mg q 4 to 6h
- Principal adverse effect → hypotension
- Preferred agent because of ease of administration and tolerability

PREVENTION OF PRETERM DELIVERY



DRUG	DOSING REGIMEN
Progesterone vaginal suppositories	100 mg daily
Micronized progesterone tablets	200 mg daily
17-OH P	250 mg i.m. weekly

Effectiveness – approximately 50%

PREVENTION OF PRETERM DELIVERY



PRETERM LABOR CONCLUSIONS



- Frequency – 12%
- Multifactorial etiology
- **Single most important cause of neonatal mortality**
- Management
 - Tocolytics
 - Corticosteroids
 - Antibiotics – in selected instances
 - Preventive measures in subsequent pregnancy