

Nursing 201 – Nursing Care of Special Populations Problems of Pregnancy

I. Hyperemesis gravidarum

- A. Excessive vomiting during pregnancy leading to dehydration and starvation.
- B. Etiology: Unknown.
Theories: ↑hCG, thyroid problems, increased estrogen
Those at risk: past history of HG, multiple pregnancy, young age, under/overweight
- C. Signs and symptoms: unrelenting n/v, ketonuria, weight loss, electrolyte imbalances
- D. Complications: dehydration (↓BV, ↓BP, ↑HR, ↑Hct, ↑BUN) malnutrition, (starvation, hypoproteinemia, hypovitaminosis, ketonuria, acidosis)
- E. Treatment:
 - 1. IV Hydration
 - 2. Meds- antiemetics, antacids, PPI's
 - 3. Nutritional supplements: pyridoxine (vitB6), ginger, or even TPN in severe cases
 - 5. Holistic- acupuncture, hypnosis

II. Cervical insufficiency

- A. Cervix is unable to support the increasing weight of the pregnancy
- B. Painless dilation of the cervical os without labor or contractions
- C. Associated with repeated 2nd trimester preterm births
- D. Predisposing factors:
 - 1. Uterine anomalies, cervical weakness
 - 2. Prior traumatic delivery
 - 3. Hx gynecologic procedures: D&C, conization, cauterization
- E. Diagnosis:
History, speculum examination, ultrasound
- F. Treatment:
Cervical cerclage

III. Premature rupture of membranes (PROM)

- A. Spontaneous ROM prior to onset of labor of any gestational age
 - 1. Latent period: time from ROM to onset of labor
 - 2. Interval period: time from ROM to birth
- B. PROM versus P-PROM
- C. Etiology: Unknown
- D. Contributing factors: smoking, hx cervical cerclage, connective tissues disorders, Preterm labor with current pregnancy, urogenital infection major cause, trauma etc.
- E. Maternal risks of PROM or P-PROM: **Infection!**
 - 1. Chorioamnionitis = inflammation of membranes
 - 2. Endometritis = postpartum infection of endometrial lining
- F. Neonatal risks – sepsis, cord prolapse & compression, placenta abruption
- G. Management:
Near term – deliver (infection risk ↑if latent period > 24 hours), GBS tx prn
Preterm – antibiotics, single dose corticosteroids, GBS tx prn, mag sulfate

IV. Premature labor

- A. Occurrence of regular uterine contractions with a change in cervical effacement or dilation after 20 weeks but prior to 37 completed weeks gestation.
- B. Etiology: 2/3 of cases the cause is unknown. Those causes that are known:

PROM (20-30%) Infection (nephritis, UTI) History of previous preterm birth Low socioeconomic status Smoking (> 10 cigarettes/day)	Underweight or overweight Periodontal disease Stressful work Multifetal pregnancy Late entry to care	Drug abuse (cocaine!) Hydramnios Uterine anomalies Placenta abruptio or previa Assisted reproduction
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- C. Identification of those at risk:
1. History – strongest predictive factor
 2. Cervical length of ≥ 30 mm has a negative predictive value= good!
 3. β FN – fetal fibronectin. β FN is like a glue that holds fetal sac to uterine lining.
- D. Risk reduction strategies:
Early recognition of risk factors, regular PN care, hydration, rest
- E. Preterm labor symptoms **may only have 1 or 2 symptoms*
Abdominal tightening, menstrual cramping, intermittent back discomfort, pelvic pressure/fullness, \uparrow vag d/c, intestinal cramping, feeling of “something is not right”
- F. Management – arrest of labor:
Toco = uterus Lytic = stop
- G. Pharmacologic management
1. Progesterone:
Rx if history of preterm birth, or development short cervix and/or β FN
Relaxes uterine contractility
Suppository or injection
 2. Betamethasone (Celestone):
Glucocorticoid, accelerates fetal lung maturation.
IM injection only
 3. Magnesium sulfate:
Neuroprotectant for newborn (decreased risk of CP)
Admin - IV – loading dose, then IV drip
SE – depresses CNS, loss of deep tendon reflexes progressing to resp arrest
Antidote:
 4. Terbutaline:
B-adrenergic, relaxes smooth muscle
Admin – SQ injection
SE – maternal tachycardia & death
 5. Nifedipine
Calcium channel blocker - decreases smooth muscle contraction by blocking the slow calcium channels at the cell surface. Oral or SL
SE – few serious. Caution! - Danger of orthostatic hypotension
Warning! – do not give with Magnesium Sulfate = skeletal muscle blockade
 6. Prostaglandin Synthesis Inhibitors – ex. Indomethacin
Depress synthesis of prostaglandins
Effective in delaying delivery 48+ hours
Fetal effects – may close ductus arteriosus