COMMON DISCOMFORTS OF PREGNANCY

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CONFLICT OF INTEREST

- No pharmaceutical affiliation
- No commercial support

OBJECTIVES

- To recognize the common discomforts of pregnancy and the less common medical diagnoses
- To describe the general approach by caregivers and the challenges to prescribing
- To identify the NON pharmacological treatments
- To identify the pharmacological treatments

CHALLENGES TO TREATMENT AND PRESCRIBING IN PREGNANCY:

- Clinician views regarding consequences of treating or not, for mothers and fetuses
- Patient(family) hesitancy and beliefs
- Acknowledge and normalize symptoms
- Limited studies
- FDA classification

MEDICATION SAFETY IN PREGNANCY

FDA Pregnancy Risk Classification for Drugs

Category A: No risk demonstrated in 1st trimester in controlled studies in woman, no risk in T2 and T3.

Category B: No risk in animal studies, but controlled studies in women not done.

Category C: Fetal harm in animals, no studies in women (or studies in animals & women not available)

Category D: Evidence of human fetal risk, but benefits may out weight the risks in life-threatening situations

Category X: Contraindicated in pregnant women.

CAUSES OF CONGENITAL ANOMALIES:

Causes	Frequencies
Genetic Factors	15 to 25%
Environmental Factors	7 to 10%
✧ Maternal infections	2 to 3%
✧ Maternal conditions	1 to 4%
✧ Mechanical conditions	1 to 2%
✧ Drugs and Chemicals	<1%
Multifactorial heredity	20 to 25%
Unknown	40 to 60%

NAUSEA & VOMITING

- Incidence:
  - Occurs in up to **50 to 85%** of pregnant women

- Normally occurs at about the **6th week** and usually subsides by the **20th week.** Persists in 20% of patients.

- Etiology:
  - High levels of circulating estrogen and bHCG
  - Slowed peristalsis
  - Increased T4 resulting in smooth muscle relaxation in the stomach
  - Emotional factors
  - Fatigue (physical and mental)

RISKS OF PERSISTENT NAUSEA AND VOMITING

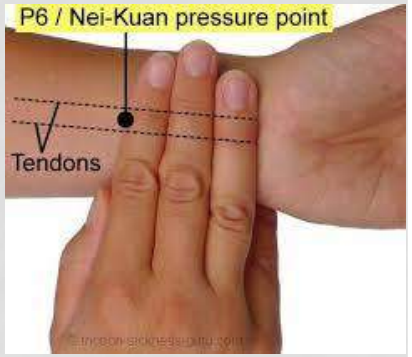
- Hyperemesis Gravidarum
  Affects 0.5 %-2.0 % of pregnant women.
  -dehydration(ketones), weight loss

- Preterm births and low Apgar score.

- Red Flags:
  r/o secondary causes:
  Hydatidiform mole , Twin pregnancy
  Pregnancy induced hypertension
  Abnormal vital signs, abdominal pain, diarrhea

NAUSEA & VOMITING: NONPHARMACOLOGIC THERAPY

- Emotional support
  - Reassurance, time limited, ambivalent feelings
- Dietary measures:
  - Small meals throughout the day (Q2-3hrs)
    Eg. : Dry crackers in AM.
  - Ginger Tea or 250mg capsules po QID.
  - Multivitamins: In the afternoon.
    Eg. : Vit. B6 (50mg)BID, Folic Acid alone
- Acupuncture & Acupressure
- Manual stimulation or bracelet at point P6



1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3676933/

NAUSEA & VOMITING: PHARMACOLOGIC TREATMENT

1st line (Pregnancy Category A):

- **Pyridoxine** (Vitamin B6), taken on its own, or combined with **Doxylamine** (trade name: Diclectin)
  - Diclectin :10mg
  - 1 tab Am,1 tab Pm, 2 tab q Hs, 8 tabs per day
  - Think prophylaxsis if past history

NAUSEA & VOMITING: PHARMACOLOGIC TREATMENT

2nd Line:

- Dimenhydrinate (Gravol):
  - 50 to100mg, q4-6h prn
- Diphenhydramine(Benadryl) or Hydroxyzine (Atarax)

3rd line:

- Metroclopramide(Maxeran)5-20mg qid
  - Chlorpromazine(Largactil)
  - Prochlorperazine(Stemetil)

4th line:

- Ondansetron (Zofran)
  - 4-8mg q8-12hr prn

HEARTBURN DURING PREGNANCY

- 25% each trimester
- Most patients with symptoms in 1st trimester will continue until end of pregnancy.
- <u>Etiology:</u>
  - Relaxation of cardiac sphincter
  - Hormonal and anatomical changes
  - Delayed emptying of stomach.
- Impact on sleep and eating patterns.

HEARTBURN DURING PREGNANCY

Red Flags:

- -treatment failure Dx H.Pylori
- -Hematemesis or dysphagia
- -if BP high, think preeclampsia

Change Habits:

- -avoid tabac, chew gum, sleep LLD, semi-fowler
- -Avoid spicy, greasy ,coffee, acidic foods

HEARTBURN DURING PREGNANCY: PHARMACOLOGIC TREATMENT

- Antacids

-Calcium carbonate (tums):
2-4 tb 500mg po qid

- Al & Mg (Maalox):
10-20 ml qid

-Alginic acid (Gaviscon):
2-4 tb or 10-20ml qid

Avoid bicarbonates (Alka-seltzer): Metabolic alkalosis

Avoid peptobismol (contains ASA)

HEARTBURN DURING PREGNANCY: PHARMACOLOGIC TREATMENT

- Anti-H2: Ranitidine (Zantac)
  - 75-150 mg po bid
  - Tachyphylaxis possible

- Sulcrate : 1 gm tid-qid

- Proton pump inhibitor:
  - Omeprazole(Losec) 20-40mg
  - die-bid Pantoprazole(Pantoloc) 40mg

- Metoclopramide(Maxeran)
  -10-15mg die-qid AC &qhs

CONSTIPATION AND HEMORRHOIDS DURING PREGNANCY

❖ Constipation :

Up to 50% in 1st and 2nd trimesters.

❖ Hemorrhoids :

25 to 30% of pregnant women

❖ Etiology:

- GI Tract motility slows
- Increased levels of progesterone
- Iron supplements may worsen

❖ Complications:

- Inflammation
- Thrombosis
- Prolapses
- Incontinence

CONSTIPATION AND HEMORROIDS TREATMENTS

- Education(Eg. : No need to have daily stool)
  Dietary measures: Fiber, hydration, etc.

- Bulk forming agents:
  - Psyllium, Metamucil (need to take with a lot of water)

- Stool softeners:
  -Sodium Docusate(Colace)100-200 mg bid

- Suppository: Gylcerin max bid

CONSTIPATION -HEMORRHOIDS

- Osmotic Laxatif :
  -Polyethylene glycol (Laxaday)
  17g in 240cc water die-bid

- Stimulant Laxatif :
  -Sennokot: 8.6-15 mg, 1-2 tb qhs
  -Bisacodyl(Dulcolax) suppository or tab

- Hemorroids: sits baths,tucks
  - Anusol +/- hydrocortisone 1% (Anusol-HC)

- NOT recommended: epsom salt(MgSo4), milk of Mg, mineral oil, castor oil

HEADACHE AND MIGRAINES DURING PREGNANCY

- Migraines: Occurs in approx.15% of pregnancies
- Tension headaches: Approx. 50%

- Red Flags:
  - -Change in quality, intensity more than 3 days
  - - Explosive, sudden, wakes up at night
  - - Neurologic symptoms or high blood pressure

- RULE OUT PREECLAMPSIA !!

HEADACHE AND MIGRAINES DURING PREGNANCY: TREATMENT

- Avoid triggers, eat regular meals…
- Massage , relaxation(biofeedback), acupuncture

- Mild : Acetaminophen 500-1gm q 4-6 hr prn
  Acetaminophen + caffeine (Tylenol migraine)

- Moderate- severe: NSAIDS with prudence
  - Contraindicated after 26 weeks-(premature closure of ductus arteriosis)
  - Contraindicated 1st trimester-spontaneous miscarriage

HEADACHE AND MIGRAINES DURING PREGNANCY: TREATMENT

- Codeine: 30-60mg po q 4 hr prn
  morphine, hydromorphine –short periods
- Triptans: choose Sumatriptan 25-100mg repeat 2 hrs after max 200mg /24 hr
- Fiorinol :try avoid contains ASA
- AVOID: CoE Q10(bleeding,LFTs,NV), Fever Few (Grande Chamomille)(antiplatelet effect), Ergots(Sansert)(oxytocic effect)

MSK -BACK PAIN-LOWER

- very frequent 50%, 1/3 severe pain
- Etiology: Hyperlaxicity of ligaments(hormonal),centre of gravity change, hyperlordoses, lax abdominal muscles
- 2 types: Lumbar Pain(LP) and Pelvic Girdle Pain

  -Pelvic girdle pain 4x more frequent than LP
  deep stabbing unilateral or bilateral pain presenting between the posterior iliac crest and the gluteal fold, can irradiate to thigh or knee, not to foot
  -Lumbar Pain may or may not irradiate to the foot

MSK- BACK PAIN-UPPER

- Cervicothoracic and shoulder pain:

  -due to breast enlargement , posture, work..
  -well fitted bra, exercise, massage
  - if numbness r/o cervical nerve compression, carpal tunnel, breast mass/infection
  - if flanc pain r/o pyelonephritis

MSK-BACK PAIN TREATMENT

- Non-pharmacological Treatment:
  rest, ice or heat, physiotherapy, osteopathy
- yoga , swimming, change of position
- abdominal support belt

- Pharmacologic Treatment:
- 1st choice: acetaminophen, myoflex, cyclobenzaprine(flexeril) 5-10 mg 1x-3x/day
- nsaids and opiates with prudence

- AVOID: camphor(CNS,kidney), menthol(no studies, risks not known) eucalyptus(seizures), capsaicin

NASAL CONGESTION

- Rhinitis of Pregnancy: 35% pregnant women

  -nasal congestion, runny nose
  -etiology- hormonal- increases nasal vasculature
  -quality of life, sleep disturbance
  -Treatment: saline rinses, exercise
  if persist, same treatment options as allergic rhinitis

  Allergic Rhinitis: 20-30%

  -sneezing, nasal congestion
  - **Anthistamines**:
    chlorpheniramine(chor-trimeton) sedating
    cetrizine(reactine), loratidine(claritin) 10mg po daily
    olopatadine (pataday) bid, Livostin nasal spray 2 bid

NASAL CONGESTION-ALLERGIC RHINITIS

-**Corticosteroids**: budesonide (rhinocort),fluticasone (flonase), mometasone (nasonex) 2 inh once or bid

-**Decongestants**:

- Dristan, Otrivin 1inh bid (short periods 3-5 days – avoid rebound congestion)
- pseudoephedrine (T2T3) OK

avoid during T1 –vasoconstriction and gastroschisis

AVOID –ephedrine(metabolic acidosis) and phenylephrine(birth defect)

OTHER COMMON DISCOMFORTS:

- Bleeding gums: estrogen, floss regularly, anemia
- nose bleeds: petroleum gel
- Faintness or fainting: vasomotor lability, hyperventilation, hypoglycemia, heat-causing dilatation blood vessels
- Fatigue/Insomnia: 1st trimester , may be excessive, sensitive to the strain on the couple r/o emotional factors

OTHER COMMON DISCOMFORTS

Pedal edema: worse evening, venous stasis
r/o edema associated with blood pressure

Varicose veins: vulva, perineal area- sanitary pad
legs - r/o phlebitis

Pigmentation: linea nigra, darkening areolae, mask of pregnancy
sunscreen

Striae Gravidarum: 2/3 of pregnant women ,rupture elastic fibers dermis
reddish then fade to white- never disappear

MORE DISCOMFORTS…

- Shortness of breath and dyspnea:
  Early T1- 60-70% increase awareness of the desire to breath ,
  Progesterone effect on respiratory center (Low CO2 high O2)
  Late T3 -pressure of growing uterus, decreased residual volume
  R/O PE, cardiac, asthma, pneumonia

- LegCramps15-30% ,etiology unclear , nightime ,calcium
  dorsiflexion , r/o DVT

- Round ligament pain: 16-32 wks,
  lower abdominal pain extending in to inguinal area
  Stretching, flexion knees
  R/O labor ,UTI, abdominal conditions

MORE COMMON DISCOMFORTS

- Urinary frequency: 1st and 3rd T, uterine pressure and increased hormones R/O UTI, cramps

- Leukorrhea: last from T1-T3 , clear or white
  R/O infection- Ch/GC,BV, candida
  R/O membranes, early preterm labor

- Ptyalism: increase salivation, T1,cultural influences and increased dietary starch, hard candy
  watch for weight loss, pica

RESOURSES

- Centre Image (Info-Medicaments en allaitement et grossesse) 514-345-2333 http://image.chu-sainte-justine.org
- Motherisk: www.motherisk.com
- SOGC: www.pregnancyinfo.ca for patients

CONCLUSION

- Inform, educate, discuss and reassure patients thus decrease couples anxiety
- Family physician is in an ideal position to be a significant source of support for pregnant patients
- Differentiate the physiologic changes of normal pregnancy from the pathologic conditions(RED flags)
- Provide non pharmacologic and pharmacologic options