OMT in OB

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Objectives

- Reflect on our unique approach to caring for the pregnant patient
- Briefly review anatomy of the lumbosacral spine and pelvis
- Demonstrate and practice high-yield OMT techniques & exercises useful in treating the pregnant, laboring & postpartum patient
Common Complaints in OB

- Lumbago
- Mid back/rib pain
- Pubic/pelvic/groin pain
- Coccydynia
- Neck pain/headaches
Osteopathy’s Role

- Pregnant women are an excellent example of the interrelationship between structure and function.
- More than half of all pregnant women report some musculoskeletal pain during pregnancy.
- Adding osteopathic manipulative approaches to the care of the pregnant women can have many benefits—decreased C-section rate, decreased rate of complications, decreased back pain.
- During labor and delivery, women are at risk for significant and potentially long-term somatic dysfunction.
Osteopathy’s Role

- Individualizing care and helping the mother be as healthy as possible help to create a successful pregnancy and labor/delivery experience.
- By addressing the structure and function of her body, we can maximize the mother’s full health potential.
Osseous Anatomy

- Pregnancy related changes affect more than the pelvis
- Lumbar spine, thoracic spine and ribs, cervical spine all affected
Osseous Anatomy

- Lumbar spine
- Innominates
- Sacrum
- Coccyx
Meralgia Paresthetica
Treatments

Lumbago/SI pain:
- L5, Sacrum, pubes, innominate rotations (Still technique)
- Iliolumbar ligament pain/strain
- Postural changes—increased lordosis (frog leg technique/pop the cork)

Rib pain:
- Commonly inhaled in later pregnancy d/t expanding uterus
Osteopathic Techniques

- Still Technique for the lumbar & sacrum & innominates
- Muscle energy for anterior innominates
- Inhalation rib/diaphragm dysfunctions
- Labor induction
- During labor
- Postpartum--lumbago, coccydynia, OA/C-spine
Techniques for Lumbar, Sacrum & Pelvis

- Still Technique: Articular type technique starting in an indirect position of a joint, adding a vector & taking the joint through its direct barrier
- BLT
- Muscle Energy for anterior innominate
Muscular Anatomy

- Piriformis
- Iliopsoas
- Lumbar and sacral paraspinals
- Pelvic diaphragm
Clinical Considerations

- Postural changes create significant musculoskeletal strain and pain
- Changes in biomechanics affect other physiological function
Postural Changes

- Growing uterus shifts center of gravity anteriorly and causes pelvis to rotate forward.
- Body compensates by extending lumbar spine and bringing shoulders back.
Diaphragm Dysfunction

Diaphragm attachments

- A **sternal part**, consisting of two muscular slips that attach to the posterior aspect of the xiphoid process of the sternum; this part is not always present.

- A **costal part**, consisting of wide muscular slips that attach to the internal surfaces of the inferior six costal cartilages and their adjoining ribs on each side; this part forms the domes of the diaphragm.

- A **lumbar part**, arising from two aponeurotic arches, the *medial* and *lateral arcuate ligaments*, and the three superior lumbar vertebrae; this part forms right and left muscular crura that ascend to the central tendon.
Diaphragm (Rib) Treatment

- Inhalation lower ribs/hemidiaphragm:
  - Patient supine & propped
  - Dr. grasps group of restricted ribs or key rib
  - Patient inhales and as she exhales, she sidebends around Dr.’s hand reaching toward her toes...holding that position during next inhalation & further encouraging that position during next exhalation until Dr. feels a shift in the dysfunctional ribs
  - Patient can also do this as home exercise without your assist
Pelvic Floor Muscles

- Primary pelvic floor muscles
  - Levator ani
  - coccygeus

- Secondary pelvic floor muscles
  - Iliopsoas**
  - Obturator internus
  - Piriformis**
Psoas major

Iliacus

Insertion of Iliopsoas
Piriformis Treatment

- Counterstrain--supine and prone
- Still Technique
- Stretching
Physiologic Changes

- Postural changes and growing uterus drag anterior thorax down while physiologic needs require increased respiratory function

- Result: Shallow breathing with decreased diaphragmatic excursion and therefore decreased movement of low pressure fluids
Frog Leg Technique--shotgun type technique for SIs
SI Supports/Prenatal Cradle
The Effects of Fluid Stasis

- Malaise
- Headache
- Nausea and vomiting
- Extremity edema
- Carpal tunnel symptoms--patient self stretch
- Hemorrhoids--ischial spread
- Varicosities (lower extremity, vulvar)--ischial spread
- Constipation--self mesenteric lifts
- Nasal congestion
- Pelvic pain
Neuroanatomy

- Sympathetic innervation of pelvic viscera: T10 – L2 (uterine contractions)
- Parasympathetic innervation: S2 – S4 (cervical dilation)
- Overlap with reflex sites affecting the colon, appendix, kidneys, ureters, adrenal medulla, and bladder
Nerve supply

- S2,3,4
  - pudendal nerve
  - Pelvic floor
  - Parasympathetics
  - Uterus

- L1,2
  - Hypogastric nerves
  - To pelvic ‘brain’
  - Uterus

- T10,11
  - ovaries

Puppy Pinch
During Labor OMT--Neuroanatomy

- Sympathetic innervation pelvic viscera: T10-L2 (uterine contractions)
- Parasympathetic innervation of pelvic viscera: S2-4 (cervical dilation)
- Knowing neuroanatomy makes it simple to know how to treat a laboring patient...
- Remember common Chapman’s reflex points
During Labor OMT

- to help facilitate the labor process, you must remember ANATOMY (Neuroanatomy)
  - OA
  - CV4
  - Pelvic rocking (seated) or sacral inhibition--depending on end goal (stimulate or inhibit?)
  - T-L soft tissue (lat recumb or seated)
  - Pelvic diaphragm
  - Push/pulls--baby’s descent, OP position
  - All 4’s and rock--breech babies
Contraindications to OMT in the Pregnant or Laboring Patient

- Undiagnosed vaginal bleeding
- Threatened abortion
- Ectopic pregnancy
- Placenta previa or abruption
- PROM or preterm labor
- Prolapsed cord
- Eclampsia or severe preeclampsia
Post-partum Exam

- Pubic symphysis
- Innominate rotations (posterior) and (out)flares
- Sacral torsions are common (dignosis & treatment)
- Coccyx, sacrotuberous ligament check for symmetry
- Lumbars
- Lower ribs from pushing/Valsalva
- Cervicals/OA from head forward position while pushing & looking at baby
Post-partum Considerations

- Pubic symphysis dysfunctions are common and frequently severe.
- A quick exam and treatment after delivery is preventive medicine.
- Sacrum, pubes, innom, coccyx.
Post-partum Considerations

- Effects of relaxin on pelvic ligaments combined with positions in delivery are notorious for-- >SD
- Innominate dysfunctions and ligamentous strains
- Relaxin normalizes???
Coccydynia
Coccydynia: Motion testing

- Patient is seated with legs apart so that there is tension on ischiococcygeal ligaments. Palpate the gluteal fold to a point about 1cm posterior to the anus. If needed, the patient may sidebend to find this location; then return patient to neutral. At the tip of the coccyx, transmit light, posterosuperior force to evaluate for sharp pain, which is diagnostic.
Ischiococcygeal Ligament
Coccydynia: treatment

Commonly, pain will radiate into one buttock

sometimes pain may not be illicited from tip of coccyx, but rather from sacrotuberus ligament

On side of pain, cross that ankle over opposite knee with patient seated on side of table

Patient takes long slow deep breaths until pain is gone as doctor continues to monitor painful spot

When pain dissipates, at end of next exhalation, patient KICKS leg forward reseating the ischial tuberosity & ischiococcygeal ligament
Home Activity Prescription

- Regular aerobic exercise, done sensibly, improves tissue compliance, fluid movement and prepares patient for delivery
- Specific exercises directed at the sacrum and lumbar spine increase flexibility and decrease pain
- Pelvic clocks and pelvic rocking improve flexibility and prepare for labor and delivery
Exercises

- Should be done at least twice a day
- Muscular contraction should take place during exhalation
- Each position should be held at maximal contraction for 5 seconds and repeated 10-20 times
- If painful, do less strenuously.
Cat/Cow Exercise
Lumbosacral Decompression
The End

Questions?