AUGUST 21-23, 2015
Loews Chicago O’Hare Hotel
Rosemont, IL

Breakout 2 - OMT for the Lumbar Spine and Sacrum
Gretta A. Gross, DO

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Please check where applicable and sign below. Provide additional pages as necessary.

Name of CME Activity: ACOFP Intensive Update and Board Review in Osteopathic Family Medicine
Dates and Location of CME Activity: August 20-23, 2015, Loews Chicago O’Hare Hotel, Rosemont, IL

Topic(s):
OMM Case Reviews: Pre-test Session
Thursday, 8/20/15
7:30-9:00pm

OMT Breakout Session #2: Lumbar Spine & Sacrum
Friday, 8/21/15
2:45-4:15pm
Friday, 8/21/15
4:30-6:00pm
Saturday, 8/22/15
6:30-10:00am
Saturday, 8/22/15
10:15-11:45 am

Basic OMT Demonstration Workshop
Friday, 8/21/15
7:30-9:30pm

Saturday, 8/22/15
6:30-9:30pm

Name of Faculty/Moderator: Gretta A. Gross, DO, FACOPF

DISCLOSURE OF FINANCIAL RELATIONSHIPS WITHIN 12 MONTHS OF DATE OF THIS FORM
A. Neither I nor any member of my immediate family has a financial relationship or interest with any proprietary entity producing health care goods or services.

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_____ Employment
_____ Partnership
_____ Others, please list:

Please indicate the name(s) of the organization(s) with which you have a financial relationship or interest, and the specific clinical area(s) that correspond to the relationship(s). If more than four relationships, please list on separate piece of paper:

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<th>Organization With Which Relationship Exists</th>
<th>Clinical Area Involved</th>
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*If you checked “Speakers’ Bureau(s)” in item B, please continue:
1. Did you participate in company-provided speaker training related to your proposed topic?
   □ Yes □ No
2. Did you travel to participate in this training?
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3. Did the company provide you with slides of the presentation in which you were trained as a speaker?
   □ Yes □ No
4. Did the company pay the travel/fodging/other expenses?
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   □ Yes □ No
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A. The content of my material(s)/presentation(s) in this CME activity will not include discussion of unapproved or investigational uses of products or devices.

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Signature: ____________________________ Date: ____________

Gretta A. Gross, DO, FACOPF

Please fax this form to ACOFP at 866-328-1835 or email to joank@acoep.org as soon as possible
Deadline: July 10, 2015
Osteopathic Diagnosis and Treatment of the Lumbar Spine and Sacrum

Gretta A. Gross, DO, MMedEd, FACOFP
DOME/PD Houston Healthcare Family Medicine Residency, Warner Robins, GA
ACOFP Intensive Update and Board Review Course
August, 2015
Chicago, IL

Objectives

- Discuss anatomy and motion of the lumbosacral spine and pelvis
- Identify landmarks utilized in diagnosing lumbar, sacral, and innominate SD
- List common lumbar, sacral, and innominate SD
- Demonstrate osteopathic techniques utilized in the lumbar and sacral SD
Anatomy

• Lumbar spine
  – Musculature – quadratus lumborum, lumbar paravertebral musculature, iliopsoas
  – Skeletal – facets are in the sagittal plane
  – Ligamentous structures – iliolumbar ligament, intraspinous ligaments

• Sacrum
  – Musculature – piriformis, coccygeus
  – Ligamentous structures – sacrotuberous ligament, sacrospinous ligament

Anatomy

• Pelvis
  – Musculature – piriformis, gluteal musculature, gemelli
  – Skeletal – ilia, SI joint
  – Ligamentous structures – sacrotuberous ligament
Somatic Dysfunction

• TART
  – Tissue texture change
  – Asymmetry
  – Restricted ROM
  – Tenderness

• Can be acute/chronic, primary/secondary

Palpation

• Static Landmarks
  – Spinous and transverse processes
  – PSIS, ASIS, pubic symphysis
  – Sacral sulcus, ILA

• Layer By Layer
  – Skin
  – Superficial, intermediate, deep musculature
Motion testing

- Lumbar – via transverse processes
  - Rotation
  - Side-bending
  - Flexion/extension
- Pelvis (SI joints)
  - Standing flexion testing
    - PSIS that rises is positive
  - Prone testing – compare motion side to side
  - Pelvic rock – ASIS compression

Intersegmental Motion Restriction

- Type I – neutral dysfunction
  - Side-bending/rotation in opposite directions
  - Group dysfunction
- Type II – nonneutral dysfunction
  - Side-bending/rotation in same directions
  - Contains restriction in flexion or extension
  - Involves single vertebral unit (facet joint)
Innominate Dysfunctions

- **Anterior Rotation**
  - ASIS lower on dysfunction side
  - Longer LE
- **Posterior Rotation**
  - ASIS higher on dysfunction side
  - Shorter LE
- **Inflare/outflare** – ASIS towards or away from midline
- **Superior/inferior shears** – upslip/downslip (innominate moves up or down along SI joint)

Motion testing

- **Sacrum**
  - Seated flexion testing
    - Seated testing locks the ilia
    - Side that rises is positive/restriction
  - Lumbar spring/sphinx testing
    - Quantity of motion with springing
    - Improvement/worsening of dysfunction with sphinx position
Sacral Motion Restrictions

- Flexion/extension around coronal axis
  - Can be unilateral or bilateral
- Anterior/posterior torsion around oblique axis (opposite side of + seated flexion)
  - Anterior torsion – rotates towards the axis side (L on L, R on R)
  - Posterior torsion – rotates away from the axis (R on L, L on R)

Techniques for Soft Tissue

- Myofascial technique
  - Stretching in parallel or perpendicular to the muscle fibers
  - Various pressure used depending on level being treated
- Counterstrain
  - Fold & hold around tenderpoint
Techniques for Interarticular Restriction

• Muscle Energy (lumbar, innominate)
  – Lateral recumbent
  – Seated
• HVLA (lumbar, innominate)
  – Lateral recumbent
  – Seated technique

Techniques

• Balanced ligamentous release
  – Compression/distraction applied to joint
  – Direct/indirect
• Cranial for sacrum (similar to BLR)
  – Myofascial release
  – Direct/indirect in plane of fascial restriction
• Functional, Still’s technique, FPR
Case Review

• Evaluate your partner for common structures involved with this type of injury
• Discuss differential diagnosis
• Review techniques that may be utilized in treating this patient

Case #1

• NG is a 35 year old male who presents with low back pain that started after lifting boxes at work 2 days ago. He was bending at the waist, heard a “pop,” and felt pain in the low back. He has never had this pain before, denies radiation, numbness, tingling, or weakness. He has no PMH/PSH, no meds or allergies. Exam reveals hyperptonicity of lumbar PVM R>L, L1-3 NSLRR.
  • Differential diagnosis?
  • Osteopathic treatment?
Case #2

• R.R. is a 28 y/o female who started having low back pain after NSVD 3 months ago. She states the pain was initially noted 1-2 days postpartum and is a dull ache that hurt most while sitting and laying. She is having trouble returning to work as a secretary. She denies PMH/PSH, is G3P3003, no issues with previous pregnancies. PE: L5FSRRR, L on L sacral torsion

• Differential diagnosis?
• Osteopathic treatment?

Case #3

• J.K. is a 56 y/o female who presents with complaints of low back pain. Pain first noticed 1 month ago upon waking one morning. It is located in low back region and accompanied by some discomfort in R thigh. She finds the pain worsens as the day goes on but denies numbness or tingling. She has a PMH for type 2 DM, HTN, hypercholesterolemia. All under good control. PE: R anterior innominate

• Differential diagnosis?
• Osteopathic treatment?
Summary

• Reviewed landmarks and motion testing of the lumbosacral spine and pelvis
• Reviewed common findings in lumbar, sacral, and pelvic somatic dysfunction
• Reviewed various osteopathic techniques utilized in the lumbar and sacral SD
• Simulated clinical scenarios from practical