

Lab Manual for Osteopathic Considerations in the Elderly Population

J. Palmer, DO

VOMA Spring CME Conference, Williamsburg, VA, May 2010

SUPINE EVALUATION

1. Pelvic Screening through the lower extremities

: Pt is supine with their legs out straight.

Physician holds each leg at the ankles, raising the legs up off the table a bit and evaluates for which one is heavier?

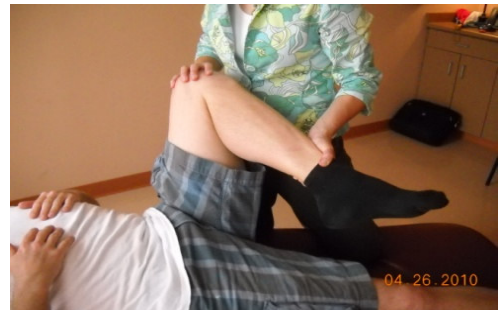
: Physician applies a “traction tug” through the leg and assesses how far up the extremity motion is felt –knees, hips, SI joints, T-L junction?



2. Lower extremities

: Pt is supine. The Physician flexes the hip up to 90 degrees to assess hip joint PROM including internal and external rotation

: when passively bringing the leg back down to the table, the Physician performs the McMurray's maneuver on the knee.



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3. SI compression test

: Pt is supine. Physician's hands on anterior aspect of ASIS; apply a downward and lateral motion towards the table
: quality and quantity of motion determine which SI joint is restricted.



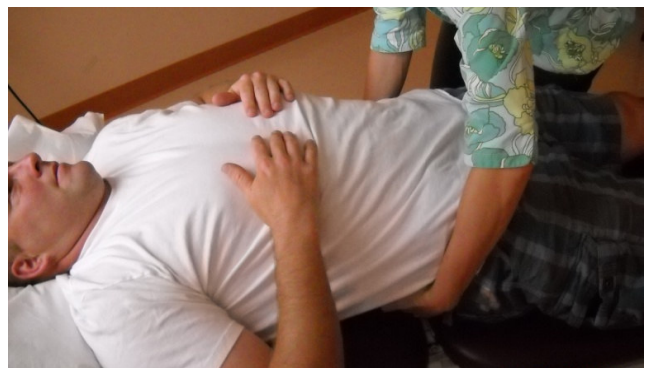
4. Iliacus tenderpoint assessment

: Pt is supine. Beginning with web-space of thumb coming up under the inferior surface of both ASIS, engage the tissues with your thumb first downward toward the table, assessing for tenderness and texture; then, if the tissues allow, out laterally toward the iliacus fossa assessing for tenderness and texture



5. Lumbar spine

: L-S rotation assessed by standing to side of the supine Patient at the level of the pelvis. Place hands along the posterior aspect of the pelvis, by matching your middle fingers to the Pt's PSIS. Then, lift up on the right side engaging rotation to the left; then lift up on the left side, engaging rotation to the right.
: assess lumbar spine through motion of the ipsilateral femur. Monitor at the individual lumbar segments for rotational motion, as you passively move the ipsilateral femur into internal and external rotation.



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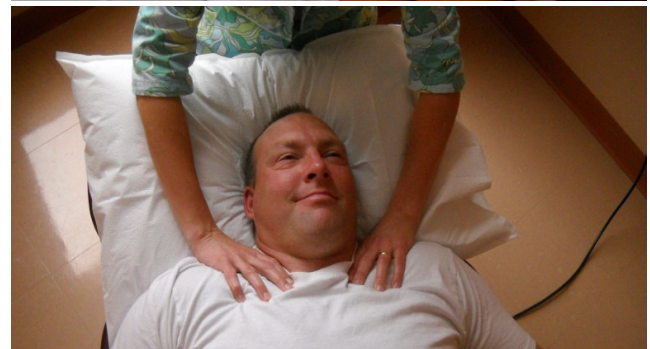
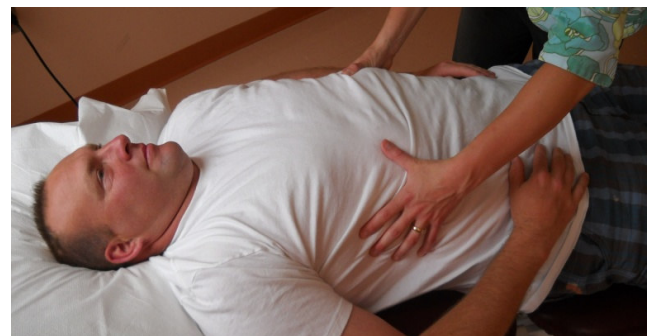
6. Thoraco-lumbar junction (T-L)

: standing at the level of the abdominal diaphragm, place your hands along the posterior aspect of the lower thoracic cage. Lifting up on the left side engages right rotation, lifting up on the right side engages left rotation.



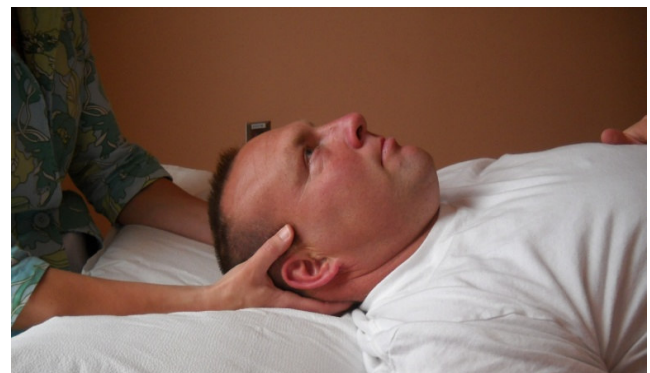
7. Thoracic cage

: ribs assessed through AROM (breathing)
: Thoracic inlet assessed through PROM and landmarks. First rib provides the rotational component; costo-transverse junction the sidebending component. Or, get a sense of the inlet through a complete A-P hand placement.



8. Cervical spine

: translate segments C7-C2.
: assess AA and OA
: assess for muscle hypertonicity of proximal trapezius, scalenes and SCM.



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9. Upper extremities

: standing at the head of the table, behind the Patient's head, grasp their wrists and move their arms into lateral abduction and flexion to compare quantity and quality of shoulder joint PROM.



TREATMENT APPROACH

A. Strain-Counterstrain for the Iliacus TP

Set-up and Procedure

Pt supine, marked bilateral flexion and external rotation of the hips with the knees flexed.

Achieve improvement of the tenderness by 70%, then hold for 90 seconds.

Slowly and passively return the Pt's legs to their starting position on the table.

Recheck for presence of Iliacus TP and quality/quantity of motion at the SI joints.



B. Strain-Counterstrain for the Quadratus lumborum TP

Set-up and Procedure

Pt supine; pelvic sidebending to opposite side of TP location, through flexion and abduction of the ipsilateral femur.

Achieve improvement of the tenderness by 70%, then hold for 90 seconds.

Slowly and passively return the Pt's leg to its starting position on the table.

Recheck for presence of quadratus lumborum TP and L-S rotation.



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C. T-L Myofascial release through the abdominal diaphragm

(modified from the Kimberly Manual, pp 55,56; copyright 2008)

Set-Up

Pt supine; Physician at Pt's side, R hand on the Pt's L lower ribs and L hand on the Pt's R lower ribs, thumbs below costal margin.

Procedure

Rotate the tissues of the thoracoabdominal region finding the middle point b/w the restriction and the ease.

Maintain this position.

Sidebend the T-L junction through the ribs finding the middle point b/w restriction and ease, **stacking this position on top of the rotational position** and hold.

While maintaining this balanced point of rotation and sidebending, ask the Patient to take a deep breath in and out, observing which phase allows the tissues more ease.

Ask the Patient to maintain this phase, and wait for the tissues to unwind.

You may follow the unwinding as it occurs.

Recheck T-L junction.

D. Rib raising

Set-up

Pt is supine and Physician's hands are contacting the costo-transverse junction on the ipsilateral side.

Procedure

Move the paraspinal tissues anteriorly (up towards the ceiling) and laterally – may engage paraspinal musculature, rib heads, or both.

Motion is performed in a rhythmic fashion and should not be uncomfortable for the Patient. Apply to all 12 ribs on both sides. Recheck rib motion.



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E. Pectoral traction

Set-up

Pt is supine; Physician is standing at the head of the table.

Physician firmly but gently grasps the pectoralis major muscle as it crosses the front of the shoulder.

Procedure

The Patient is instructed to breathe in and out deeply. Cephalic traction is placed through the musculature as the Patient exhales. May be repeated 3-5 times. Recheck rib motion.



F. FPR for the First Rib

Set-up

Pt is supine. Physician stands on the ipsilateral side to be treated, just below the shoulder joint. Physician's hand that is closest to the Patient, contacts the costo-transverse junction of Rib 1- T1** - this will be referred to as the "listening" or "monitoring hand". The other hand grasps the Patient's flexed elbow.

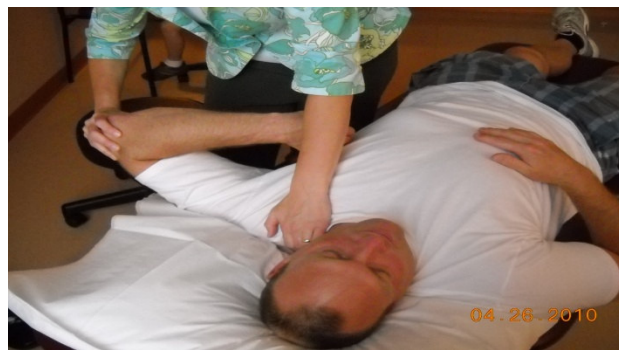
Procedure

Pt's arm is flexed until motion or softening is felt under Physician's listening/monitoring hand. Slight, but effective compression is put into the tissues through the Pt's humerus until the tissues feel like they "float".

The arm is then taken through a circumductive motion, so that elbow is moved medially across the chest and back down to its neutral position.

Recheck thoracic inlet.

** this maneuver may be applied to the superficial soft tissues, then to the articular junction.



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G. Posterior cervical soft tissue

Set-up

Pt supine. Physician stands on the side opposite of that to be treated. Their cephalad hand on the Pt's forehead and caudad hand along the paraspinal musculature.

Procedure

In a rhythmic fashion the paraspinal muscles are engaged anteriorly and laterally at the same time as the head is turned toward the side that is being treated, then returned back to mid-line.

Recheck PROM of cervical spine.



H. Direct trapezius stretching

Set-up

Patient is supine. Physician stands at the head of the table with one hand contacting the opposite shoulder of the side to be treated and the other hand on the Pt's head for stabilization

OR,

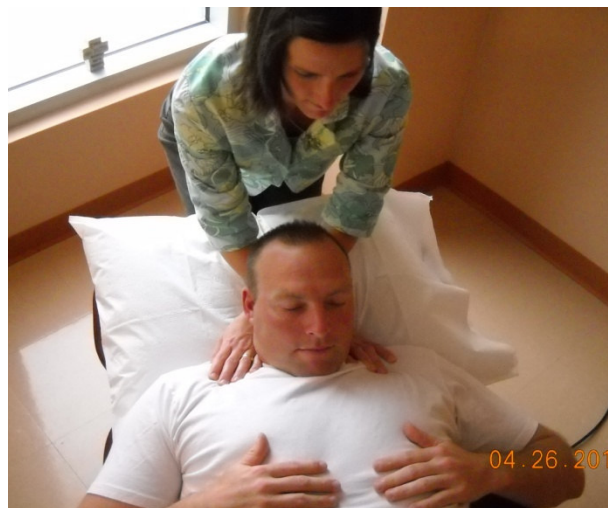
with their arms crossed, contacting both shoulders simultaneously and allowing head to rest on Physician's forearms.

Procedure

The head and neck are passively flexed up to the point of barrier or motion restriction - enough to engage a slight pull in the musculature (primarily traps and lev scap). The Pt may be instructed to push their head back into the Physician's arms as a muscle energy modification of this direct stretching technique.

This maneuver may be repeated 3-5 times.

Recheck OA and AA.



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I. Lateral recumbent Scapulo-thoracic junction

Set-up

Pt is lying on the side, opposite of the upper extremity to be treated. Physician is facing the Patient, standing at the level of the scapula. The Pt's scapula is "winged" through passive retraction, to allow for a firm contact of the medial border of the scapula. The Physician's other hand supports the front of the shoulder girdle, or holds onto the "crook" formed by the Pt's flexed elbow. The Pt's arm may rest on the Physician's.

Procedure (3-parts: superior, middle, inferior)

Superior musculature (top picture) is engaged by placing the hand at the superior-medial angle of the scapula, standing at the level of the Pt's pelvis (below the scapula) and engaging the tissues in a downward/caudal fashion. Hold for a few seconds, allow the junction to return to its starting position and repeat 2-4 times.**

Middle musculature (middle picture) is engaged by placing the hand at the medial border of the scapula, standing at the level of the scapula and engaging the tissues in a superior fashion. This may be tweaked by adding a cephalad or caudal motion, whichever increases the stretch. Hold for a few seconds, allow the junction to return to its starting position and repeat 2-4 times.**

Inferior musculature (bottom picture) is engaged by placing the hand at the inferior angle of the scapula, standing at the level of the Pt's head (above the scapula) and engaging the tissues in an upward/cephalad fashion. Hold for a few seconds, allow the

junction to return to its starting position and repeat 2-4 times.**

Recheck upper extremity ROM.

May encourage the Patient to move their shoulder into retraction against Physician resistance if a muscle energy modification is desired. Also, most Patients already favor protraction, so adding in this direction **will not increase the stretch.

