Dynamic Chiropractic

CHIROPRACTIC TECHNIQUES

Cervical Injuries Resulting from Adjustive Procedures

PART I

Joseph D. Kurnik, DC

The following is an outline of suggestions designed to help reduce the occurrence of cervical injuries (ligamentous, arterial, neural) resulting from chiropractic adjustive procedures. It will be followed by some explanation.

1. Learn to motion palpate in the supine position, in all directions. Motion palpation allows one to test the integrity of tissues directly.

2. Identify the most important fixation on each side, left and right.

    a) Identify its mechanical listing: i.e., rotation blocked, lateral flexion blocked, combined rotation/lateral flexion blocked, extension or flexion blocked.

    b) Choose correctly.

3. The most important fixation is the major fixation. Try to incorporate a lateral flexion fixation in your choice of the major fixation. It is better to choose a coupled rotation and lateral flexion fixation to adjust than a pure rotation. The adjustment is less stressful to tissues if lateral flexion is combined.

4. Avoid hyperextension during the adjustment.

5. Try not to adjust more than one segmental level per side per office visit. Try to adjust only one side if a major is on one side and a marginal fixation is on the other. Usually, the right side is the marginal side, but not always: i.e., if you find a grandiose major on one side and a marginal fix on the other, only adjust the one major and check your results later. Be patient. You can always take the marginal fixation at a later time.

6. Learn to identify the C-1 LPS-RA fixations.

    a) These can lead to right or left head/neck/shoulder/arm pain.

    b) Right sided C-2 or occiput fixes.

    c) Other cervical compensations.

Comments

- Motion palpation in the supine position is relaxing to the doctor and patient. The doctor can also more easily check the integrity of the tissues in any variety of positions. The seated upright position of motion palpation is also a good procedure, but it incorporates postural compensations and muscle tension due to the need to maintain an erect posture.

- Choose the fixation with the greatest loss of motion and end play. Combine your analysis to include joint testing in many directions, and to isolate the worse level, in its most restricted direction. For example, check C-1/C-2 by contacting C-1 TP or arch or the actual joint space region between C-1 and C-2. Mildly rotate, then introduce some lateral flexion. Check different combinations until you register the best combination.

- My experience has repeatedly shown the left side to predominate in the number and degree of fixations. The right side is much more mobile in general. In general, most significant adjustments are on the left side.

- It is better to choose a combined or coupled adjustment rather than a pure directional adjustment. Adjusting to eliminate lateral flexion and rotation simultaneously is less stressful to tissues, and safer. Performing a pure rotation means that there is considerable rotational torque, even with a fixation being present. If you incorporate some lateral bending, provided there also is a lateral flexion restriction, then less rotation is required to release the joint. Also, more overall motion and freedom results. The danger, obviously, is to vertebral arteries, ligaments, and nerve fibers.

- Hyperextending imbricates the facet joints and narrows the intervertebral foramina. Damage to any of the above structures mentioned in #3 may result.

- Try not to adjust more than one level per side per visit. The first adjustment should be your major, because each adjustment will make the next more difficult to achieve. The body begins to shut down with each adjustment, waiting to assimilate each correction. This is especially true in the cervical spine. In the thoracic spine, you can get away with it because you can adjust T-4, then move to T-9 and get a crisp adjustment at each level due to the distance that separates them. The cervical are closely packed. It is like draining the pressure out of a container. Each adjustment makes the next harder to get, almost as if adjusting C-6 drains pressure from the next level of adjustment. Under identical circumstances with two trials, with fixes at C-6 and C-1, the following is repeatedly observed:

    a) Adjusting the fixation at C-1/2 will lead to a clean and crisp adjustment if it is the first level adjusted.

    b) If you adjust C-6 first, then try to adjust C-1 second, more force is required and the adjustment is not as clean. It may be accompanied by tissue reactions and possible discomfort. The staying power of the C-1 adjustment or "hold" may not be as good as it would have been if C-1 alone were adjusted. In some cases, the body can also reject the cervical corrections because it was too much for the body to integrate or accept as a foreign force. It is not saying that it cannot be done, but that the force and stress required is increased as the second or third cervical correction is made, increasing the chances of injury. Sometimes you can get away with it; sometimes it backfires, with a patient calling the next day complaining about his reaction. When that happens, do you make excuses or analyze the possible causes of the reaction?

- Learn to identify the C-1 LPS-RA fixation. This fixation is capable of creating:

    a) Bilateral or unilateral headaches (especially the intense right- sided headache). This can occur over the eyes, behind the eyes, in the temples, forehead, back of the head, top of the head, and posterior suboccipital region.

    b) Visual disturbances.

c) Shoulder or arm pain.

d) Nausea.

e) Fatigue, anxiety.

f) C-2/3 or other compensations

This LPS-RA means that the left side of C-1 is posteriorly and laterally fixated (restricted). When tested, the left side does not properly rotate to the right and restricts lateral flexion. The right TP resists anterior to posterior motion. The techniques need to be demonstrated for most clarity.

Part II

Supine Motion Palpation and Supine Adjustive Procedures: Some Observations

1. The most significant intersegmental cervical fixations occur on the left side. This is a firm statement, a generalization; and solid fixations also occur on the right side. The frequency and degree of hypomobile fixations (observed on the left side) are greater.

2. The most significant cervical fixations are a combination of lateral flexion and rotation dysfunctions.

3. The greatest number of hypomobile fixations occur at C-1/C-2, C-2/C-3, and C-6/C-7.

4. Avoid adjusting marginal fixations, especially on the right side.

5. When the entire left side feels blocked, it is usually an upper cervical fixation which is causing the blockage. Sometimes, a lower cervical fixation like C-6/C-7 may be the cause. Correcting the upper or lower cervical major fixation will release the entire left side.

6. Adjusting the right sided marginal fixations can most easily give rise to soft tissue stress signs. Adjusting any marginal fixation, normal joint, or hypermobile joint can give rise to dangerous soft tissue signs; however, the right side is especially vulnerable.

7. Adjusting a fixation with a strong lateral flexion component, incorporating lateral flexion in the adjustment, will result in a less stressful adjustment. There will be less stretch by avoiding the pure rotation maneuver. This, however, may not hold true with severely inflamed facets.

8. Learn to identify the C-1 LPS-RA fixation, because proper correction will solve a great number of cervical related problems.

In my experiences and observations, the following represent the greatest risks in cervical adjusting:

1. Marginal right sided fixations first. Marginal and hypermobile joints on any side.

2. Anterior right C-1 fixations, with muscular hypertonus, posing as right C-1 posterior to anterior fixations.

3. Adjusting more than one level on one or both sides. It can be done, and I do it; but it does

pose increased risk.

4. Adjusting hypermobile listings, especially those hiding behind muscular hypertonus. Absence of motion analysis could lean one towards this error. Inability to coordinate muscular and joint signs can lead to costly mistakes.

5. Forcing an adjustment on patients who cannot relax and trying to force through the muscle guarding.

6. Adjusting the elderly patient who has had no previous chiropractic care.

Joseph Kurnik, DC
Torrance, California

NOVEMBER 1997