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AT A GLANCE

President's Report

By: Dr. David Dos Santos

Important Supreme Court Decision:

DAC Assessors Sued For Negligence – Case Dismissed

2004 CSCE/CMCC CONFERENCE NOTICE

FEATURED ARTICLE:

[*Is Paradoxical Motion Normal At The Occipito-Atlantal Joint \(C0/C1\) On Flexion?*](#)

By: Richard P. Corbett
D.C., DABCO, DACBR

EDITOR: LAURA MBA

PRESIDENT'S REPORT

By: Dr. David Dos Santos

Since my last communication, the CSCE Board of Directors continues to be presented with challenges. We are working hard to meet the challenges to ensure that opportunities for CSCE members are maximized.

In Ontario we have a new Provincial Government which has indicated their intent to alter the dispute resolution process, and delivery of health care services for auto accident victims. CSCE is working through the Coalition of Regulated Health Care Professionals and Allied Organizations to continue to make our views known. We anticipate that the coming months may usher in changes, although it is not yet clear what the framework will look like. CSCE intends to pursue other areas for possible CSCE member involvement, including the Workplace Safety and Insurance Board.

In order to fulfill our national mandate, we are endeavouring to designate Provincial Representatives. We perceived this as a need, given the different regulatory jurisdictions that CSCE members operate in. We hope that this will be the first step in assisting CSCE members in different Provinces in the development of mandates, which will be a prelude to helping in identifying and marketing CSCE member involvement in independent assessment processes.

As you are aware, CSCE is a founding member of the International Federation of Chiropractic Evaluators. This allows us to liaise with like-minded organizations to exchange information, develop standards and garner recognition of member expertise with regulators and third party payors.

Membership in CSCE remains stable and increasing, with several new members accepted over the past year. The membership committee is working with the communications committee to update the Desktop Reference Manual and Directory of Members.

Over the past few months your Board of Directors has approved the Position Statement on Evidence-Based Health Care. This will be incorporated into an updated version of the CSCE Standards and Guidelines which are currently undergoing review. This should be complete later this year.

Thanks to fiscal prudence CSCE continues to operate in good financial health, despite limited resources. As was the case from last year's annual conference, we anticipate that the forthcoming conference in April will be profitable one and help offset CSCE general expenditures.

The CSCE Annual Conference will again be co-sponsored by CMCC. The conference will be held on April 24, 2004 and is titled "Chronic Pain: Realities, Myths and Misconceptions." Contact Laura Mba, 416.497.4477 for registration information.

As a final note, I would encourage those members who have not yet served on Committees to get involved. I thank the present Board and individual Committee Members for their ongoing commitment to the Society. Without them valuable work could not get done.

Sincerely,

D. Dos Santos
B.Sc.,D.C.,FCCRS(C)
CSCE President

DAC Assessors Sued For Negligence – Case Dismissed

There was an important decision relating to DACs heard by J. Lane in the Superior Court Of Justice in Ontario on September 2, 2003. The Judge allowed the motion to dismiss the Statement of Claim. The Court File Number is 62891/02.

In this case, a Chiropractor, (BM), and an Occupational Therapist, (SM), performed a Medical and Rehabilitation DAC Assessment to determine whether the Goods and Services proposed in the disputed Treatment Plans were reasonable and necessary.

The Judge relied on previous case law and show that "these decisions illustrate the futility of the case put forward by the Plaintiffs". Time and again, persons frustrated by the opinions and findings of professionals in litigation, or similar adversarial proceedings, have sought to claim damages on various bases, including negligence, negligent misrepresentation, fiduciary duty and others. Uniformly, they are turned down when the only relationship with the defendant arises out of the litigation. Such a relationship can rarely, if ever, be the basis for legal liability. The principle that no witness is liable to anyone for what has been said in the witness box, or in preparing to testify, or in the examination of a party, or in a report for use as evidence, is essential to protect the judicial system which depends upon the willingness of witness to appear and testify. It is also an essential safeguard against the endless re-litigating of cases that have already been decided.

The only relationship in this case between the plaintiffs and the defendants, is the assessment of, and report on, each of the plaintiffs by one or both of the defendants. This took place in the context of a litigious situation where the dispute resolution process required the defendants to intervene as they did. The cases show they cannot be sued for carrying out their statutory duty because their duty of care is not owed to the plaintiffs. They cannot be sued for malpractice because their contact with the plaintiffs was not sufficient to create a medical duty of care to the plaintiffs. They cannot be sued for breach of fiduciary duty because the assessment relationship lacks the element of expectation that the assessor will act in the interests of the plaintiff and so does not give rise to a fiduciary duty in favour of the plaintiffs, and as such, a duty would be inconsistent with their neutral position. They cannot be sued for what they say in their reports because such reports are absolutely protected by witness immunity. The Statement of Claim reveals no cause of action. The motion to dismiss succeeds.

This important case law further emphasizes that DACs and their assessors are protected from lawsuits.

April 24, 2004

Crowne Plaza

DVP & Eglinton Ave.
Toronto, Ontario

8:30am - 5pm

Registration
at 8:00am

Lunch Included

Chronic Pain: Realities, Myths and Misconceptions

A multi-disciplinary conference presented by the Canadian Memorial Chiropractic College and the Canadian Society of Chiropractic Evaluators.

The clinical management of the chronic pain patient poses a challenge for clinicians. At the same time, regulators and third party payors are placing increasing demands that interventions offered be demonstrated effective and cost-effective. This conference will highlight the challenges that clinicians face in the treatment of the chronic pain patient, while providing insight into current perspectives on management. Aptly titled, the conference will explore what we know about the chronic pain patient population, while attempting to dispel myths and correct misconceptions.

This conference will be of interest to all stakeholders. Clinicians will be interested in presentations and discussions on biopsychosocial perspectives. Non-clinicians such as third party payors, regulators and representatives from legal community will be interested in the unique challenges faced in the treatment of this patient population, in order to help in the development of sound regulations and policies.

Registration: \$249

CMCC/CSCE Members: \$199

All Registrations After April 13: \$299

Full brochure and registration form coming soon! For further information contact CMCC Continuing Education 416-482-2340 ext. 191 or at ce@cmcc.ca.



Please set aside
Saturday April
24, 2004 and
attend the
joint conference
presented by
CSCE & CMCC.

Is Paradoxical Motion Normal At The Occipito-Atlantal Joint (C0/C1) On Flexion?

Rick Corbett D.C., D.A.B.C.O., D.A.C.B.R.

Introduction

This paper will report on the incidence of paradoxical motion in the cervical spine on cervical spine flexion/extension radiographic studies in motor vehicle accident (M.V.A.) injured patients, utilizing a qualitative evaluation of change in height of the interlaminar space.

Paradoxical Motion In The Literature

Other researchers have visited the subject of "paradoxical motion" of the cervical spine in the sagittal plane.^{1,2,3,4,6} As well, "a paradoxical tilt component of the atlanto-axial joint has been described in postural lateral radiographs in flexion and cineradiography."⁴

Methods Used To Evaluate Motion In The Cervical Spine In The Sagittal Plane

In the literature, there are a number of methods which have been used to evaluate motion in the cervical spine in the sagittal plane. While most methods measure the “change in angle between positions of corresponding vertebrae⁴”, others determine: the “location of the axis of rotation of a vertebral segment⁴”, “the offset or translation of one vertebra on another⁴”, or change in height of the spinous process spacing (the “interspinous method”).

Method Used For Determining Paradoxical Motion In This Study – The “Interlaminar Method”

I have used observed changes in the height of the interlaminar space, which I submit as the “interlaminar method”⁵, to determine paradoxical motion. See: A Quick/Simple Qualitative Method To Study Cervical Spine Motion in the Sagittal Plane Without Performing Overlays: Observing and Evaluating Changes In The Height of The Interlaminar Space Occurring On Cervical Flexion/Extension Radiographic Studies, Journal of the American College of Chiropractic Orthopedists, 2001; 23(2), pp. 27-29.⁵

Proposed Advantages Of The “Interlaminar Method” Over The “Interspinous Method”

The method employed in this study (the “interlaminar method”) is most similar to the method of evaluating spinous process spacing (the “interspinous method”).

In my opinion, the “interlaminar method” is superior to the “interspinous method” for these reasons:

1. The Geometry of the Cervical Spine: the height of the interlaminar space is characteristically less than the height of the interspinous space. As a result, changes in the height of the interlaminar space become correspondingly more significant, and further, become easier to appreciate/visualize than changes in the height of the interspinous space.
2. Variation/Anomaly: There can be considerable variation/anomaly in the spinous processes in the cervical spine; in my clinical experience, anomalies at the interlaminar spaces are far less common.

Any Correlation Between The “Interlaminar Method” and the “Interspinous Method”?

A correlation between the proposed “interlaminar method”, and the “interspinous method” (evaluating spinous process spacing), would be the province of another paper.

Definition Of Normal Motion On Flexion Of The Cervical Spine

On global flexion of the normal cervical spine, **except for C0/C1^{a,5,1}**, we should expect to see an increase in the height of the interlaminar spaces throughout the cervical spine. (See Figure 1 – Neutral, and Figure 2 – Flexion.)

Definition Of Normal Motion On Extension Of The Cervical Spine^{5,1}

On global extension of the normal cervical spine, we should expect to see a decrease in the height of the interlaminar spaces throughout the cervical spine. (See Figure 3 – Extension.)

Definition Of Paradoxical Motion In The Cervical Spine⁵

For the purposes of this study, the definition which I have used for paradoxical motion in the cervical spine is as follows: intersegmental motion, at the interlaminar space, at a motion segment pair, which contradicts, or is in the opposite direction of, the global motion of the remainder of the cervical spine.

^a C0/C1 = Occipito-Atlantal joint

Paradoxical Motion On Flexion Views:

If, on global flexion of the cervical spine, a decrease in height of the interlaminar space occurs at a motion segment pair in the cervical spine, paradoxical motion was judged to have occurred at this motion segment pair.

Paradoxical Motion On Extension Views:

If, on global extension of the cervical spine, an increase in height of the interlaminar space occurs at a motion segment pair in the cervical spine, paradoxical motion was judged to have occurred at this motion segment pair.

Selection Of Subjects:

I pooled, and then reviewed the x-ray reports containing flexion and extension studies, which I had prepared for patients injured in motor vehicle accidents (M.V.A.'s), for the period of Jan 1/99 through Nov 6/00 (N=159).

Statistical Analysis

Descriptives were used (i.e. percents).

Results - Descriptives

55 of the 159 flexion/extension motion studies (34.6%) demonstrated paradoxical motion at one or more levels in the cervical spine:

<u>Paradoxical Motion on Flexion at:</u>	<u># of Reports/Patients</u>	<u>% of 55</u>	
a. C0/C1	38	69.1%	
b. C0/C1 and C1/C2	1	1.8%	
c. C3/C4	1	1.8%	
Subtotal	40	72.7%	
<u>Paradoxical Motion on Extension at:</u>	<u># of Reports/Patients</u>	<u>% of 55</u>	
d. C0/C1 ^b	1	1.8%	
e. C1/C2	1	1.8%	
f. C1/C2 and C7/T1	1	1.8%	
g. C6/7	4	7.3%	
Subtotal	7	12.7%	
<u>There Was Paradoxical Motion on Flexion, as well as Extension at:</u>			
<u>Level of Flexion</u>	<u>Level of Extension</u>	<u># of Reports/Patients</u>	<u>% of 55</u>
h. Flexion C0/C1	and Extension C6/7	2	3.6%
i. Flexion C0/C1	and Extension C7/T1	6	10.9%
Subtotal		8	14.5%
Total		55	~100% (99.9%)

^b Paradoxical motion on extension at C0/C1 was associated with increased range of motion at C1/2 on flexion, but not with paradoxical motion at C1/2.

Summary Of Data

I offer the following summary of the data:

Of the 159 reports which evaluated flexion and extension of the cervical spine in the sagittal plane, paradoxical motion was reported in 55 reports (34.6%).

Paradoxical motion occurred most commonly on flexion at C0/C1:

-Of the 159 reports, paradoxical motion occurred on flexion at C0/C1 in 47 reports (a+b+h+i) (29.5%).

-Paradoxical motion occurred on flexion in 47 of the 55, or 85.5% of the reports/patients who demonstrated paradoxical motion. In 9 of these 47 reports (b+h+i) (19.1%), paradoxical motion at C0/C1 was further associated with paradoxical motion at one other motion segment in the cervical spine:

<u># of Reports/Patients</u>	<u>% of 55</u>
i. at C1/2 on flexion -	1 1.8%
ii. at C6/7 on extension -	2 3.6%
iii. at C7/T1 on extension -	6 10.9%

Paradoxical motion on either flexion or extension, was most common at C0/C1 - 48 reports/patients (a+b+d+h+i) (87.3%)

Paradoxical motion on extension:

-occurred at C0/C1 in only 1 report/patient (1.8%)

-was most common in the lower cervical spine - 13 reports/patients (23.6%)

C6/7 - in 6 reports/patients

C7/T1 - in 7 reports/patients

Is There Any Significance To Paradoxical Motion?

The question, which begs asking, is: "Is there any significance to paradoxical motion?"

There is convincing data^{4,6}, which shows that paradoxical motion in the non-transitional portions of the cervical spine (i.e. C2-C6) represents abnormal motion.

What About The Transitional Portions Of The Spine?

Is there any significance to paradoxical motion in the transitional portions of the spine?

In this study, 29.5% of M.V.A. patients who had flexion and extension views taken of their cervical spines, demonstrated paradoxical motion at C0/C1 on flexion.

I note that this contrasts with the 94% of asymptomatics who demonstrated paradoxical motion at C0/C1 in full flexion in Lane's study (i.e. approximation of occiput and posterior arch of atlas - occipital extension).¹

What's The Difference?

With regard to the incidence of paradoxical motion at C0/C1, what is responsible for the difference between my findings (29.5% demonstrate paradoxical motion), and Lane's findings (94% demonstrate paradoxical motion)?

My study measured M.V.A.-injured patients, and Lane's study measured asymptomatics. Could this be a factor? I don't know. Further studies might clarify this.

Conclusions

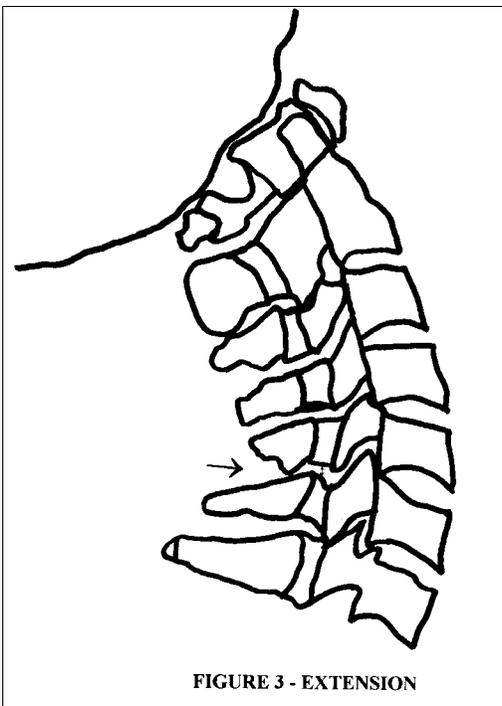
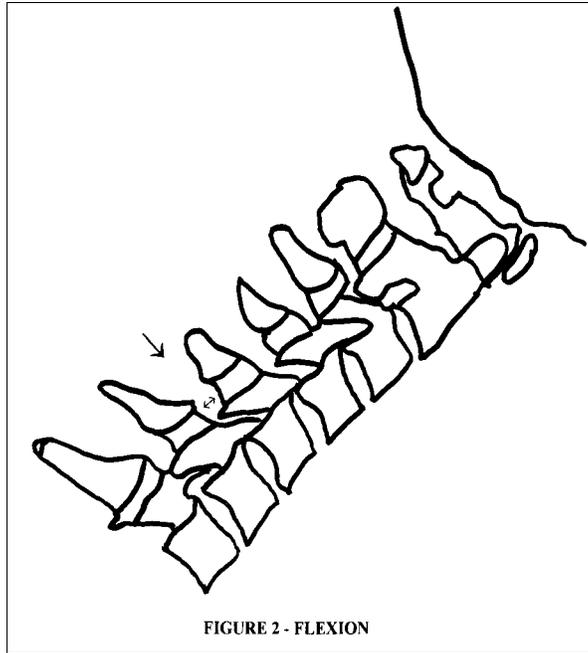
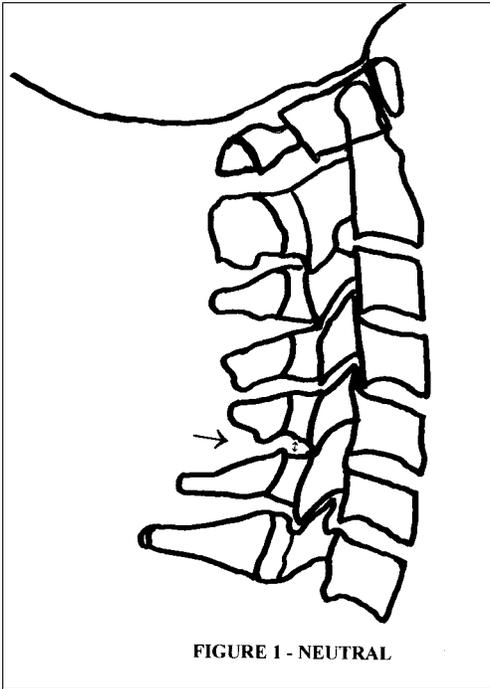
I make the following observations/suggestions:

- Perhaps paradoxical motion at C0/C1, at least on flexion:
- May be a normal variant, or
- May perhaps be normal in 94% of asymptomatics.

Or to put it another way, perhaps normal motion at C0/C1 in asymptomatics, on flexion, may be "paradoxical motion".

- If this is so, perhaps, following an M.V.A., there can occur a loss of this “normal paradoxical motion” at C0/C1 on flexion.
- Perhaps, following a motor vehicle accident:
- The *presence of paradoxical motion* at C0/C1 on flexion is not pathomechanical, *because it is normal*;
- Then *only the absence of paradoxical motion* at C0/C1 on flexion should be considered significant.

With regard to paradoxical motion in the lower cervical spine (i.e. C6/7/T1), it is not clear, when it occurs, whether it is a normal variant, or whether it is abnormal. Further studies might clarify this as well.



References

- 1 Lane GR. Cervical spine: its movement and symptomatology. Journal of Clinical Chiro. Archives Ed. 1, Spring 1971.
- 2 Whitehead LC, Moon C. The cineradiographic evaluation of normal and aberrant flexion motion in the cervical spine. In Haldeman S. ed. International review of chiropractic; 1981;35(2)
- 3 Wackenheim A. Functional atlanto-occipital block. Neuroradiology; 1971;vol 3:80-81
- 4 Henderson DJ, Dormon TM. Functional roentgenometric evaluation of the cervical spine in the sagittal plane. Journal of Manipulative and Physiological Therapeutics; 1985;8(4):219-27
- 5 Corbett RP, A Quick/Simple Qualitative Method To Study Cervical Spine Motion in the Sagittal Plane Without Performing Overlays: Observing and Evaluating Changes In The Height of The Interlaminar Space Occurring On Cervical Flexion/Extension Radiographic Studies, Journal of the American College of Chiropractic Orthopedists, 2001; 23(2):27-29.
- 6 McGregor M, Mior S, Shannon H, Hagino C, Schut B. The clinical usefulness of flexion-extension radiographs in the cervical spine. In Mootz RD, Vernon HT, eds. Topics in Clinical Chiropractic Series – Best Practices in Clinical Chiropractic. Gaithersburg, Maryland: Aspen Publishers Inc; 1999;174-83