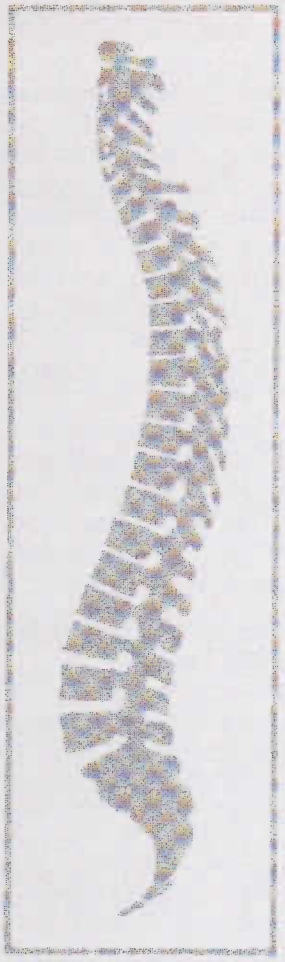

THE CHIROPRACTIC REPORT

An international review of professional and research issues, published bimonthly.

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Professional Notes

Manga Report - Follow-up

The September 1993 issue of this Report reviewed the newly released Manga Report (*The Effectiveness and Cost-Effectiveness of Chiropractic Management of Low-Back Pain,* Manga P, Angus D et al (1993), Pran Manga and Associates, U of Ottawa, Canada).

In the Manga Report, commissioned by the government of Ontario, Canada, health economists analyzed the international research and concluded that chiropractic management was markedly superior to medical management for patients with low-back pain - in terms of safety, effectiveness, cost-effectiveness and patient satisfaction. In the months since:

- In widespread media comment the Ontario Minister of Health, Ruth Grier, has been supportive of the Report. She has referred it to a joint committee (with Ministry and chiropractic representatives) for specific recommendations on policy changes to improve access to and use of chiropractic services. This committee is due to report in March 1994.
- There has been broad acceptance of the credibility and conclusions of the Manga Report. As a result of the Report and on the advice of its Medical Director, the Ontario Workers' Compensation Board, specifically targeted in the Manga Report, has instituted a formal policy

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Long-Term Care - Justification and Reimbursement

A. Introduction

1. This Report is read by many from each of the chiropractic profession and the health insurance world. The single issue upon which these two groups have the greatest conflict and misunderstanding - with very different perceptions of reality on both sides - is justification and reimbursement for long-term care.

For the patient with back pain from an injury at work, or neck injury following a motor vehicle accident:

- When is long-term care curative and when is it palliative?
- Who should pay for it?
- What is the difference between *supportive* and *maintenance* care?
- What is the clinical, legal and financial significance of the point of maximum therapeutic benefit - commonly termed 'maximum medical improvement' (MMI) in insurance contracts.
- What is the difference between permanent *impairment* and *disability* for these patients, and when and how should it be rated?

This issue of the Report addresses these questions. The following recent case example puts them in a practical context - and is typical of patients seen by most chiropractors on a daily basis.

The Case of Mrs. A

2. Mrs. A, a hospital nurse aged 40 with three children, feels a tearing sensation in her low back as she maneuvers a struggling elderly patient in a bath. She continues to work for several weeks but with increasing back pain and stiffness, then leg pain.

On medical advice she then stops work, which is said to be aggravating the injury, and is managed with rest and medication, then physical therapy modalities and an exercise routine. None of this works. There is temporary relief but the underlying problem is continually getting worse. She is referred to two specialists who can make no further diagnosis or significant change in management.

After three months off work and now unable to perform basic household chores such as lifting, unable to "reach my feet to put on my nylons or tie my shoes" and only able to get out of bed with difficulty, she transfers to chiropractic care. This comprises heat packs and manipulation initially, then later more extensive manipulation, interferential therapy and exercises for what is diagnosed as a mechanical low-back problem.

Frequency of chiropractic care is:

- Three treatment visits a week for two months.
- Two treatment visits a week for one month.
- One visit per week for one month (the fourth month of chiropractic care).
- For the past 12 months, and currently, approximately one visit every three to four weeks.

Mrs. A says "I feel that the chiropractic treatment has worked on the source of the problem in freeing up the mechanics of my low back". After two months she was able to return to work and cope with normal domestic tasks such as carrying groceries and laundry. First she could walk, then swim, and now she is playing tennis.

Why is she still receiving care? Mrs. A's description is that her employment as a nurse and other activities "gradually work on my back, and I can feel the tightness returning after about three weeks. One treatment with manipulation and interferential therapy brings complete relief."

3. Mrs. A's injury is covered by her workers' compensation plan which includes chiropractic care. These, however, are the very different perspectives of the insurer and the insured. Workers' compensation paid for 18 weeks of chiropractic care. It was then ruled that:

- Mrs. A had reached maximum medical improvement (MMI).
- The cost of future care should be paid by her from any award for permanent partial impairment (PPI).

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1995 Centennial Celebrations
Canada: May 31 to June 4, Toronto, Ontario. *United States:* July 5-9, 1995, Washington DC (incorporating the 1995 World Chiropractic Congress) and September 13-17, 1995, Davenport Iowa. Clear those dates now.

In Mrs. A's case, where there was no appreciable impairment according to the American Medical Association Guides to the Evaluation of Permanent Impairment (the rating guide used by her workers' compensation plan), she did not qualify for a PPI rating. As a result there was no lump sum award. The practical consequence? She was responsible for the cost of all chiropractic care after the initial 18 weeks.

4. Mrs. A's perspective, endorsed understandably enough by her chiropractor, was rather different:

- "For three months workers' compensation paid me lost income benefits and extensive medical costs while I was off work and becoming increasingly disabled and desperate."
- "By seeking and continuing chiropractic care I am fully employed and substantially reducing costs to the plan. It is completely unfair that I must now pay for my chiropractic care."

5. Everyone will agree that Mrs. A should receive at least some coverage for her ongoing and future care - there are likely to be sharp differences, though, on the issue of how to resolve the problem.

This Report now looks at the issues and suggests answers. Be warned, however, that much remains grey and confused for everyone in these areas. Relevant clinical issues remain unresolved in chiropractic and medicine, and clinical issues merge with legal ones. As an example of the degree of confusion, no impairment rating system anywhere in the world is regarded as clinically sound and acceptable - a fact evidenced by the use of numerous systems in different jurisdictions.

B. Supportive v Preventative/ Maintenance Care

6. The chiropractic profession promotes preventative care on a similar basis to dentistry. Preventative spinal care includes the detection and correction of restricted range of vertebral joint motion and its neuromuscular effects (termed 'subluxation') before these give rise to greater dysfunction and pain. Rationally third party payors should, and increasingly do, see the wisdom of preventative care in health care plans. However this care, on traditional and most current standards, is not 'therapeutically necessary'. It is 'elective care' given by choice of the patient.

The chiropractic profession has formerly used the term 'maintenance care' indiscriminately to include both preventative care and continuing care as in the case of Mrs. A. It should come as no surprise therefore that some claims managers, who are also exposed to the worst examples of overtreatment, see all long-term chiropractic care as 'maintenance care', elective, and not eligible for reimbursement.

7. To address this problem the chiropractic profession, in nationally-based practice guidelines in the United States (1992)[1] and Canada (1993)[2] developed by formal consensus methods, has established these two definitions:

Supportive Care: Treatment for patients who have reached maximum therapeutic benefit, but who fail to sustain this benefit and progressively deteriorate when there are periodic trials of withdrawal of treatment. Supportive care follows appropriate application of active and passive care including rehabilitation and life style modifications. It is appropriate when alternative care options, including home-based self-care, have been considered and attempted. Supportive care may be inappropriate when it interferes with other appropriate primary care, or when the risk of supportive care outweighs its benefits, i.e. physician dependence, somatization, illness behaviour, or secondary gain. (*i.e. Supportive care is care that is therapeutically necessary*).

Preventative/Maintenance Care: Any management plan that seeks to prevent disease, prolong life, promote health and enhance the quality of life. A specific regimen is designed to provide for the patient's well-being or for maintaining the optimum state of health (*i.e. Preventative/maintenance care is elective care*).

8. Whether Mrs. A, in our case example (para 2), is currently receiving 'supportive' care, and whether the frequency of care is appropriate, are matters of clinical judgment and expert opinion. An insurance company/WCB/ attorney for Mrs. A needs the advice of the treating chiropractor and, if that is challenged, the advice of a chiropractic consultant. Such consultants should be establishing guidelines for claims management staff, and ruling on disputed cases.

Assuming that Mrs. A is currently receiving supportive care, how should her workers' compensation carrier pay for this? The answer involves an appreciation of the legal/clinical concept of MMI.

C. Maximum Medical Improvement (MMI)

9. With soft tissue injuries commonly seen in chiropractic practice, such as a motor vehicle whiplash injury giving pain, headaches, vertigo and other symptoms, or Mrs. A's back and leg problem, the subjective perspective of the patient and chiropractor might well be that MMI is the point of complete relief of symptoms. Appropriate management, combined with patient compliance on exercise and lifestyle modification, will finally lead to negligible neuromusculoskeletal dysfunction and pain.

However, the point of MMI is not a subjective clinical matter - it is a clinical and legal determination designed in part to create a tenable basis for financial projections and the setting of premiums in the insurance world. In the United States most workers' compensation and personal injury insurance contracts provide for:

a) Treatment to the point of MMI.

b) Thereafter a lump sum settlement for permanent impairment and the cost of future treatment.

Internationally there is usually a similar division, with the probable cost of long-term and future care being established within an award for permanent partial

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disability once the condition of the patient is considered to be stabilized.

10. This arrangement means that claims can be settled within a reasonable period, and insurers can look at projected costs annually with a reasonable degree of certainty. From the insurance perspective it is unreasonable to be forced to price policies based on all actual costs of future treatment. Looking at Mrs. A an insurance company says:

a) If her claim is not fully settled when she reaches the point of MMI, but remains open for actual cost of future care, in 20 years we will have hundreds of thousands of continuing claims outstanding.

b) Over the years supervening injury and degeneration will be confounding factors, making it increasingly difficult to assess what treatment is attributable to her work injury.

Neuromusculoskeletal Disorders - MMI

11. When is there MMI - the end point of curative care and the commencement of palliative care - for Mrs. A and other patients with neuromusculoskeletal disorders?

In *Medical-Legal Issues in Chiropractic*[3] Stephen Foreman, DC, Michael Stahl, DC and Louis Sportelli, DC suggest three criteria for determining MMI for a patient with a typical and uncomplicated soft tissue injury:

i) When the upper and lower limits of subjective pain have been established. (e.g. A patient experiences pain relief for one or more days following a treatment, but then returns to a similar pain level.)

ii) When the treated tissues have no potential for further healing.

iii) When the patient fails to progress clinically. This may be determined by objective assessments (e.g. ROM and strength tests) or validated patient questionnaires on function and pain (e.g. back pain - the Modified Oswestry Index or Roland Morris Disability Questionnaire; neck pain - the Vernon Mior Disability Index. For full description of these outcome measures see the November 1992 (Vol. 7 No. 1) issue of this Report.)

After MMI the patient may have pain - and further palliative treatment may alleviate the pain. In a personal injury case should the insurance carrier pay for this care on an ongoing basis, should the case remain open? To quote Foreman et al:

"....the answer is no. If the patient needs additional care for the control of symptoms, the doctor should close the case, report the residuals, and estimate the need for future care in the final narrative report. It will be the attorney's job to obtain adequate compensation from the carrier to pay for the future treatment."

Mrs. A's Case

12. When did Mrs. A reach MMI? We need more details, and this is where the presence of timely patient reassessments and good file documentation become important. This, remember, is a clinical *and* legal question.

a) If there has been no formal reassessment, MMI and the end point of curative management may be judged from external facts - such as the date of return to work, or transfer from weekly to 'as needed' care. Even more conservatively MMI may be judged from a presumed soft tissue healing period of 8 to 12 weeks. (This healing period, quite widely used in the insurance industry, is based upon healing at rest. It is inappropriate for Mrs. A because of her history prior to chiropractic care, and the nature of her chiropractic management which is not based upon rest. The chiropractic model, which has now been established by research to be more effective and cost-effective than traditional medical management based on rest[4], encourages early return to activities of daily living. This prevents deconditioning, psychological overlay and chronicity - the acceptable price for this is minor aggravations of the injury and a longer active soft tissue healing period.)

b) If Mrs. A has been reassessed with an Oswestry Questionnaire and ROM and strength measurements at 6, 9,12 and 15 months, and each of these document continued clinical improvement, she may not have yet reached MMI.

D. Assessment of Permanent Impairment

13. Palliative care given to maintain clinical improvement after MMI may be therapeutically necessary. It will be 'supportive care' if it satisfies the established definition given above (see para 7). Payment remains the responsibility of the insurance carrier - not on an ongoing open-case basis but in terms of a lump sum award for permanent impairment and future care.

The exact method for determining the lump sum payment will be different according to type of case and jurisdiction, depending upon whether the patient's reimbursement is according to negligence under common law (involving litigation against, for example, the guilty motor vehicle driver and his/her insurance company) or a statutory scheme (as in no-fault motor vehicle jurisdictions and workers' compensation).

Impairment v Disability

14. These terms may be used in either a health care or a legal context, and it is important to be aware of the difference. Correct usage clinically, according to the World Health Organization (WHO) International Classification of Impairments, Disabilities and Handicaps[5], is:

Impairment: An impairment is any loss or abnormality of psychological, physiological or anatomical structure or function. *(e.g. loss of a leg due to amputation; osteoarthrosis or dysfunction of lumbar facet joints).*

Disability: A disability is any restriction or lack of ability to perform an activity in the manner or within the range considered normal for any human being, as a result of an impairment. i.e. *The effect of the impairment on performance. (e.g. restriction in running for a lower limb amputee; restricted trunk movements in a patient with spinal joint pathology).*

Handicap: A handicap is a disadvantage for a given individual, resulting from an impairment or a disability, that limits or prevents the fulfilment of a role that is normal (depending on age, sex, and social and cultural factors) for that individual. i.e. *The effect of the impairment on performance for this individual. (e.g. the impact of the leg amputation on a football professional; the impact of lumbar facet pathology and restricted trunk movements on a golf professional).*

These health care definitions must always be compared, however, with the legal definitions in use under case law and statutory law in each jurisdiction.

15. It is a matter of some discomfort to health professionals that the insurance and legal world asks them to go further than making an assessment of impairment and/or disability - to go on to express permanent partial impairment or disability as a percentage of total loss of use or function. These things can be said:

a) In this context impairment or disability is a legal concept, relevant to determining entitlement but of no clinical validity.

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b) The rating must be made by a duly qualified health professional - there is always an element of professional judgement. No one else is suitably qualified.

c) Some form of reasonably objective and reproducible rating system should be established as a guide, and used by all health professionals in a given jurisdiction. In the 1990s there should obviously be interdisciplinary input in establishing and reviewing rating systems for soft tissue injuries.

Rating Guides

16. There is remarkable chaos in this key area of guides to rating permanent impairment in soft tissue injuries. Accordingly:

a) Internationally there is no rating guide that is widely accepted by the health care community as valid and appropriate.

b) In the United States if you are in California you may use a California Guide[6,7], if you are in another state something else.

c) The American Medical Association Guides to Evaluation of Permanent Impairment[8] are quite widely used but heavily criticized[6,9]. For back injuries, for example, they make no allowance for load tolerance, pain or specific individual vertebral dysfunction. Winer et al, Australian specialists in rehabilitation, complain that there are confusing definitions that conflict with the internationally accepted WHO definitions, unacceptable complexity and "overdependence on ranges of trunk movement".[9]

17. Winer et al suggest a new guide for the assessment of percentage impairment of neck, back and pelvis, one which should be of interest to the chiropractic profession because it is the first medically developed guide to include impairments based on the diagnoses of cervical facet, lumbar facet, and sacroiliac dysfunctions. In this rating system, which has been tested for the past three years and is still under modification:

a) Assessment is based upon two parameters - the diagnosis, and the severity of symptoms of pain and loss of function.

b) Percentages for impairment of the back and pelvis appear in Table 1.

c) These represent percentage permanent loss of use of the back, not the whole body as in the AMA Guides. A separate award is made for a leg or arm impairment. (This serves to highlight the legal nature of such guides - clinically neurological loss of use in a leg with nerve root injury is intrinsically part of the back problem.)

Table 1: Percentage of impairment — non-economic permanent loss of use of the back and pelvis

Diagnosis	Severity grading 1	2	3	4	5
	Percentage loss of use of the affected part				
Chronic back pain (Involvement of more than two levels will attract higher percentage)					
No objective residual signs	0	5	5	*	*
Ligament and/or muscle strain	0	5	5	*	*
Zygapophyseal joint dysfunction	0	5	10	10	*
Sacroiliac joint dysfunction	0	5	5	10	*
Degenerative joint disease with superimposed sprain (includes: degenerated disc, spondylosis, zygapophyseal joint arthrosis and spinal canal stenosis). Involvement at more than one or two levels will attract higher percentage					
Conservative care	5	7½	10	15	20
Surgery	7½	10	15	20	25
Disc herniation without neurological deficit					
Conservative care	5	15	15	20	25
Chymopapain discectomy/microdiscectomy	5	15	20	25	25
Surgery	7½	15	20	25	30
Multiple surgical procedures	10	20	25	30	35
Spondylolysis					
Non-union	5	5	5	10	15
Spondylolisthesis					
Grade 2	5	10	10	15	20
Grade 1 may attract lower percentage assessments, Grades 3 and 4 higher percentages					
Stable fracture					
Healed with 10% compression	5	10	5	10	15
Healed with 25% compression	10	15	15	15	20
Healed with 50% compression	12½	20	20	25	30
Healed with 75% compression	15	20	30	35	40
Surgery for instability	20	25	30	35	45
Transverse and/or spinous process healed with no displacement	0	5	5	7½	10
Transverse and/or spinous process with non-union	5	5	10	10½	15
Unstable fracture					
Spondylolisthesis	20	25	30	40	50
Burst body	25	30	35	40	50
Chronic infection					
Arachnoiditis	10	15	20	30	40
Discitis	10	15	20	30	40
Osteomyelitis	10	15	20	30	40
Pelvic fracture					
Stable	0	10	20	30	40
Unstable	15	20	30	40	50

Notes. Multiple level involvement may attract additional percentage disability.
Add 5%-10% where there is persistent neurological deficit (see tex).
Surgery (see tex)
* The Committee found it too difficult to generalise to provide base reference figures.

d) Figures given are a guide only - they are increased by various factors (e.g. multiple level involvement, neurological deficit).

e) There may be pre-existing impairment. If so the health care assessor judges how much percentage impairment is due to the current injury, how much is due to pre-existing conditions.

f) As the authors admit:

"There is no objective scientific basis for these recommended levels. Rather, the recommendations are arrived at with difficulty and they are based on a gut feeling together with experience in an attempt to achieve parity, where appropriate, with other published guides. (Health) evaluations will always contain an element of subjective judgment based on levels of specialist knowledge and experience. ... Each patient is to be assessed and interpreted individually, and our recommended figures are no more than a guide."

E. Conclusion

18. What all of this means in practical terms for chiropractors and third party payors, if the interests of patients are to be protected, is:

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Main Article: *continued from page 4*

a) For those patients who require long-term supportive care, the chiropractor should document this from the beginning of management - performing timely reassessments to help document the real point of MMI, introducing appropriate reduction of frequency of visits/withdrawal of care, maintaining appropriate file records, and calling any necessary long-term care 'supportive' rather than 'maintenance' care. All these things fall within express current guidelines for chiropractic practice in the United States and Canada.

b) The insurance carrier/scheme must determine:

i) Whether long-term chiropractic care is supportive care.

ii) The point of MMI, beyond which supportive care is palliative rather than curative.

iii) What lump sum should be paid to the patient for future care, which is the insurer's responsibility to the extent that the patient's partial permanent impairment and future care arises from the injury.

On all of these determinations, which depend largely upon clinical judgment and expert opinion, the third party payor should obviously have chiropractic advice. This should be in three forms - the report of the treating chiropractor; where this is challenged, claims management guidelines established with the assistance of a chiropractic consultant; and, in unclear cases, individual case review by a chiropractic consultant.

c) The chiropractic profession, itself and where possible in conjunction with the medical profession, must work to improve rating guides, claims procedures, and the legislative basis for permanent disability awards to accident victims with soft tissue injuries. This is particularly true for patients with soft tissue injuries covered by workers' compensation. Many workers' compensation schemes have:

- inadequate systems for detecting and rating permanent impairment from joint dysfunction as recognized by Winer et al.
- a system of awards for economic loss and non-economic loss that fails to compensate the cost of future care for such patients.

19. That brings us back to Mrs. A and her chiropractor. On one hand it is unrealistic for them to expect her workers' compensation plan to leave her claim open forever, paying actual cost of supportive care arising from her work injury.

On the other hand it is completely unjust for the workers' compensation plan not to have a system of lump sum disability awards that recognizes her permanent partial impairment and cost of future care.

It is appropriate to recall here that workers' compensation is not, and should not be administered as, a social program. Injured workers do not receive a 'handout' through the generosity of the state and their employers. Workers' compensation is a scheme in which workers collectively surrender their rights to sue employers in the courts in return for fair compensation - full compensation for all actual expenses and reasonable compensation for all permanent disabilities caused through accidents in the work place.

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Professional Notes: *continued from page 1*

change to remove any restrictions that tend to limit a worker's complete freedom of choice of chiropractic services.

(Chiropractic is well accepted within the Ontario workers' compensation system - workers can elect chiropractic care, xray examinations are paid at the same rate as medical specialists, the fee schedule for services is about two-thirds the usual open market fee for chiropractic services and the WCB head office employs chiropractic consultants to monitor and make decisions on chiropractic services. Treatment for up to 12 weeks is guaranteed - thereafter there must be authorized extension of care. However there remain all the usual workers' compensation problems - administrative gridlock in branch offices where there are no chiropractic consultants, use of forms that tend to encourage workers to seek medical care, constant problems with approvals for extension of care, and payment at a rate that is significantly below the usual marketplace fee. The WCB is now making a commitment to remove these various structural problems. Mr. Paul Harrison, the Treasurer advises that in 1993 over 50% of workers-compensation low-back injuries in Ontario were treated by chiropractors, about 12% of these on medical referral).

Frequency of Care - A Problem for Everyone

'Variation in Physicians' Recommendations About Revisit Interval for Three Common Conditions', Petitti DB and Grumbach K (1993) J Family Practice, 37(3):235-240.

The main article in this Report looks at the frequency and duration of chiropractic care for patients with complicated or chronic cases of soft-tissue injury. Many areas of medical practice are in similar need of further research and guidelines.

In this study performed in the San Francisco area in 1992 and just published in the Journal of Family Practice:

a) The aims were "to determine the extent of variation in primary care physicians' recommendations about revisit interval for three common chronic conditions" - diabetes melitus, angina and hypertension - and "to see what physician characteristics were associated with chosen revisit intervals."

b) A survey was sent to 116 primary care MDs - 80% family practitioners, 20% certified in internal medicine. They were all members of the teaching faculty at the University of California (San Francisco) and had previously identified an interest in practice-based research - therefore they were arguably more thorough than primary care MDs generally.

c) With respect to three hypothetical patients, all of whom had a "stable" chronic condition, they were asked to select one of eight intervals (2 weeks, 1 month, 2 months, 3 months, 5 months, 6 months or 1 year) as the interval to a follow-up visit.

d) The result? "There was a great variation in physicians' recommendations about revisit intervals for each of the hypothetical patients...For each condition, about 40% of physicians would recommend a revisit at 3 months, but from 12% to 20% would recommend a revisit at 1 month, and more than 10% at 6 months or longer". Recommended revisit intervals did not correspond with any type or feature of physician practice.

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Petitti and Grumbach refer to other studies in the US, Canada and the United Kingdom which all show large variations in medical practice concerning revisit intervals for patients with hypertension. There are no studies that show any link between revisit interval and patient outcome.

Anesthesia and Vertebral Injury Syndrome

'Postoperative Brainstem and Cerebellar Infarcts', Tettenborn B, Caplan LR et al, Neurology (1993) 43:471-477. *'Basilar Artery Embolism after Surgery under General Anesthesia: A Case Report'* Fisher CM Neurology (1993) 43:1856.

There is a real but extremely remote (.0002%) risk of vertebral artery syndrome (VAS) following cervical adjustment. This is now well understood and reported. Until now there has been no research into VAS following unusual neck positioning during anesthesia for general surgery.

The interesting paper by Tettenborn et al suggests that VAS may be a much higher risk from administration of general anesthesia than in chiropractic practice. The study involved all cases referred to stroke referral services over a 2 year period at 3 hospitals in the US and 1 in Germany.

a) This study was designed to look at the causes and clinical features of post-operative posterior circulation strokes. The researchers expected, and got, strokes due to embolism after cardiac/vascular surgery.

b) They did not expect such strokes after general surgery. They ended up with 12 cases, in 10 of which the most likely cause of stroke was neck "position-related vertebral artery thromboses" associated with anesthesia.

c) There is no data on the total number of operations performed and thus no percentage frequency of this risk of stroke. The authors note that there is no other research into the frequency - or mechanisms - of stroke after general surgery.

d) Their literature review discloses VAS from neck movements in many diverse ways - including swimming, fitness exercises, painting a ceiling, yoga exercises, falling asleep and eye examinations.

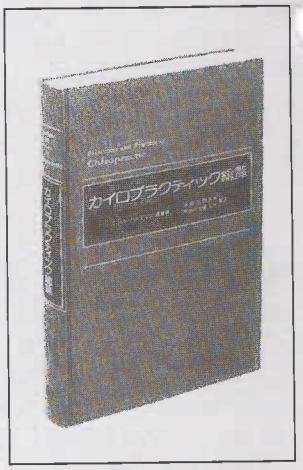
The article by Tettenborn et al gave rise to the case report from Fisher. Here a 46 year old woman had uneventful ovarian surgery, but died the following day. Pathologic examination revealed "a major embolus to the distal basilar artery" which Fisher concludes "was deposited within the vertebral system as a result of extension and rotation of the neck while the patient (was) anesthetized."

Fisher, a neurologist at Massachusetts General Hospital in Boston, concludes:

- "This complication is not rare."
- "If movement or position of the neck proves to be the mechanism, the condition should be preventable."
- "Anesthesiologists are generally unaware that such a hazard is under scrutiny."

POINTS

- "Americans ... spent almost three million days in the hospital because of Medical Back Problems" in 1988, this was "the seventh leading reason for all US hospitalizations," and about "70% of hospitalizations and 80% of hospital days were inappropriate", say Cherkin and Deyo in a major new study just published in Spine. "... non-specific back pain and herniated discs were the most common diagnoses" for those admitted. Standard non-surgical treatments were bed rest and narcotics and sedatives. 3 of 4 patients received this management. Spinal manipulation is not among the various other treatments mentioned. (*'Nonsurgical Hospitalization for Low-Back Pain: Is it Necessary?* Cherkin DC and Deyo RA (1993) Spine 18(13):1728-1735).
- New Zealand has become the latest country to establish chiropractic education within its university system. The new program, which commences next month at Auckland University, is based on the same model as that used at Macquarie University, Sydney, Australia.
- JMPT has just published a thorough and provocative case report on successful management of a patient with hypertension who sought chiropractic care because of the side effects he was receiving from medications. Gregory Plauger DC, from Palmer-West and one of the authors, has now received research awards from FCER and the Chiropractic Centennial Foundation for a properly designed, randomized controlled trial of chiropractic management of hypertension - preliminary results will be available in 1995. (*'Chiropractic Management of a Hypertensive Patient'*, Plaugher G and Bachman TR (1993) JMPT 16(8):544-549).
- For the first time a major chiropractic text - Scott Haldeman's *'Principles and Practice of Chiropractic'* - has been published in Japanese. Many North American chiropractors may be surprised to learn that the chiropractic journal with the largest subscription base worldwide is the Japanese Journal of Manipulative Therapeutics.



Principles and Practice of Chiropractic in Japanese.