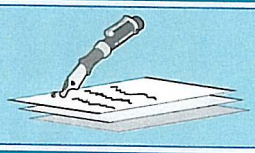
Your Letters



Dear Sir,

I was interested to read the review on whiplash injuries, written for your summer issue by the Chiropractor, Jonathan Cook.

As an Orthopaedic Surgeon, I am familiar with the work of the Bristol Group headed by Gargan and Bannister, but it would be helpful to have the references that he uses, listed in full.

I was interested in the classification into six groups, which was proposed on page four in the third column. This presumably is a chiropractic classification. Does it have any bearing on prognosis?

Foreman and Croft - both Chiropractors, developed a classification into three groups. This classification was also used by Norris and Watt from Bristol in their paper on prognosis in 1983. This classification was based on symptoms and signs. Gargan and Bannister in 1990, reviewing the same group of patients as Norns and Watt, reclassified patients that they reviewed into four groups, based on the severity of symptoms rather than physical signs. Thus a long term prognosis in people who have sustained neck injuries following rear end collision is not, by any means, a straight-forwards matter.

It seems to me that Mr. Cook is right when he talks about making an accurate diagnosis of the soft tissue injury. Unless a diagnosis can be made, then it is very difficult, or impossible, to predict the natural history of the condition and hence give a prognosis. Any references to the five different syndromes he describes in his article would be very welcome.

Mr. John H. Challis
Consultant Orthopaedic Surgeon

Dear Mr. Challis

This is a chiropractic classification and I am currently validating this classification, I have not investigated the prognosis indication from symptomology, however this is part of a prospective study I am working on now with Bournmouth Chiropractic College.

A paper published in the Journal of Orthopaedic Medicine "A Symptomatic Classification of Whiplash Injury and the Implications for Treatment" (Khan, Cook, Gargan and Bannister), raised interesting conclusions though it was a retrospective study.

Three of the five syndromes are identified in the paper. Most importantly group three was the "Bizarre" group of patients. My current thinking is that this group has psychological overlay, hypermobility and a breakdown in their propreoceptive function in the cervical spine. The management for these patients should be psychological assessment with a view to psychological treatment and a vigorous proprioceptive core stability exercise programme.

Jonathan C.H. Cook DC FRCO

Dear Sir

I was impressed at the new format of 'Medico~Legal News and particularly the adoption of a mini-symposium format on combined medico-legal topics, in particular 'Work Related Arm Pain (or not!). There is a great need for thoughtful comment on many subjects by experts from many disciplines and to have balanced view points put forward in this kind of format is very useful.

I look forward to this being a regular feature and expansion of the publication – indeed a regular medico-legal periodical pulling medical, legal and aspects of expertise would be a valuable addition to the literature and a good help to all experts.

I do hope this continues and a rolling series of symposia on matters of concern could develop into a very useful addition to the literature – and with a much wider circulation.

Congratulations on a very promising publication

Michael O'Driscoll Ch.M. FRCS.

Dear Mr O'Driscoll

Thank you for you kind comments and we hope that this and forthcoming issues are as helpful to you. Ed.

Chiropractic - "Fast Track to Whiplash Care"

by Jonathan Cook

Medico~Legal News, Vol. 1 Issue 3 Summer 2000

There has been a lot of interest shown in, and feedback from Mr. Cooks article and many of you have requested more information on the references given, these are as follows.

Full Reference Details

1 Woodward M, Cook JCH, Gargan M & Bannister G. Chiropractic Treatment of Chronic "Whiplash" Injuries. Injury 1996; Vol27 (9), 643-645

2 Gargan M, Bannister G. Long-term Prognosis of Soft-tissue Injuries of the Neck. Journal of Bone & Joint Surgery 1990; Vol72b (5), 901-903

3 & 4 Khan S, Cook JCH, Gargan M & Bannister G. A Symptomatic Classification of Whiplash Injury & the Implications for Treatment. Journal of Orthopaedic Medicine 1999; Vol21 (1), 22-25

5 Spitzer, Skovron, Salmi, Cassidy, Duranceau, Suissa, Zeiss. Redefining Whiplash and its Management. Scientific Monograph of the Quebec Task Forc on Whiplash Associated Disorders 1993.

7 Hides JA, Stokes MJ, Saide M, Jull GA, Cooper DH. Evidence of Lumbar Multifidus Muscle Wasting Ipsilateral to Symptoms in Patients with Acute/Subacute Low Back Pain. Spine 1994 Jan 15; 19(2): 165-72

Future Topics

On the Registration and Feedback form at the back of this publication we ask if there are any topics you would like covered.

Requested topics have included the following:-

Dr S S Palia would like an article on - Post-Traumatic Stress Disorder (PTSD)

Dr. S.J. Ward would like an article on - Essential elements of a Psychological report following trauma.

If you would like to write an article in reference to these or any other subject relevant to the magazine we would be pleased to consider it for publication.

Please send your Letters articles, comments etc., to:
The Editor, Medico~Legal News,
P.O. Box 5228, Westcliff-on-Sea,
Essex, SS0 9YE. Tel: 078 8548 2113
e-mail: desabuk@aol.com

that is not recovered for the client. This cost may add up to a substantial sum of money over the lifetime of the client, and some problems may not become apparent for several years.

A well-designed follow-up schedule is desirable to diagnose late complications. Periodic observation and radiographic (x-ray) review of the teeth is required and helps ascertain an accurate long-term prognosis. Some injuries may require an even longer observation period. For example, if a child's upper deciduous teeth are traumatised, a review should take place every three months for the first year, followed by annual recall until the eruption of the underlying permanent teeth, (between ages of seven and nine years). This enables the dental specialist to determine that permanent tooth eruption is not disturbed and identify if any of the teeth are malformed and in need of restorative treatment.

The main complications of trauma to adult teeth are pulp necrosis (death), pulp canal blockage (obliteration) and root resorption (dissolving). It is a fact that even a simple concussion injury, with no visual sign of structural damage to a tooth, carries a risk of complications and an opinion should be sought.

WHIPLASH AND TEMPOROMANDIBULAR JOINT INJURIES

Besides direct dental injuries most solicitors may be surprised to learn that whiplash victims may develop symptoms that are dentally related. These symptoms may contribute to a victims suffering, and can be diagnosed, and treated by a suitably trained dentist.

Temporomandibular joint (TMJ) symptoms are a common finding in motor vehicle accident (MVA) patients with cervical whiplash. The relationship between whiplash and TMJ injuries has been verified with magnetic resonance imaging (MRI), in individuals who presented with TMJ symptoms and had sustained no direct trauma to the face, head or jaw, and had no TMJ complaints prior to the MVA[4].

Trauma to the TMJs resulting from direct blows to the face and jaws, due to impact with hard structures such as steering wheels, dashboards and windscreens, is well documented. Injury to the TMJs from impact with the automatic air bag has been reported and confirmed using magnetic resonance imaging (MRI)[5].

An examination of the TMJs should therefore become an integral part of any comprehensive evaluation of post motor vehicle accident cervical whiplash victims.

Solicitors can screen whiplash sufferers for injuries (jaw joints) after accidents very easily using this tailor made questionnaire:

Table 1: Questionnaire for screening whiplash injuries to teeth and jaw joints after accidents

After the accident did you experience any of the following?
Please indicate if you had a symptom before and/or after the accident.

Jaw joint clicking	yes/no	before/after	Pain in the ears	yes/no	before/after
Limited mouth opening	yes/no	before/after	Dizziness	yes/no	before/after
Painful jaw joints	yes/no	before/after	Neck pain	yes/no	before/after
Muscle tenderness in the face, cheeks and temples	yes/no	before/after	Shoulder pain	yes/no	before/after
			Back pain	yes/no	before/after
More frequent headaches	yes/no	before/after	Poor energy levels	yes/no	before/after
Pain on waking in the morning (jaws, cheek muscles and teeth)	yes/no	before/after	Disturbed sleep patterns	yes/no	before/after
			Increased anxiety	yes/no	before/after
Nighttimes tooth grinding	yes/no	before/after	Poor concentration	yes/no	before/after
Fullness of the ears	yes/no	before/after	Forgetfulness	yes/no	before/after

An orthopaedic surgeon is routinely instructed by most solicitors to report for accident victims with whiplash injuries. This report is essential and will evaluate the musculoskeletal aspects of the client's disability. However, there may be additional dental disorders that a dental specialist could diagnose, if instructed in addition to the orthopaedic surgeon, which could substantially affect the quantum of the claim if lengthy and expensive dental treatment was required.

It is in the best interest of a client to recommend they seek appropriate treatment as soon as possible. It is important that any treatment provided prior to examination by an expert is well documented. A dental expert can refer to these records later when the client is examined.

Delay in treatment is a common problem. A number of our clients could have benefited greatly from early treatment. Many clients simply state that they have been waiting for months for their solicitor to arrange an appointment for them. Inappropriate management can lead to unnecessary tooth loss, extensive bone damage due to infections that complicate future treatment, extended treatment times, increased costs and may have the potential to cause osteoarthritic change in the temporomandibular joints (TMJs).

Claims of temporomandibular joint disorder (TMD) in individuals with whiplash are increasing[6]. Whiplash symptoms, including the early and late stages, are detailed as follows:

General Whiplash	Early whiplash	Late Whiplash
Jaw pain	Neck pain	Neck pain
Jaw joint clicking	Headache	Fatigue
Fullness of the ears	Shoulder pain	Shoulder pain
Pain in the ears	Back pain	Insomnia
Dizziness		Anxiety
Headache		Concentration
		Forgetfulness

The issues of diagnosis and establishing causation are complicated when it is appreciated that studies investigating jaw joint imaging (e.g. x-ray, computerised tomography scan, magnetic resonance imaging, arthroscopy) demonstrate many types of jaw joint abnormalities in subjects with no apparent symptoms whatsoever. Clinicians interested in this field appreciate that jaw joint disorders are common within a normal population, often with sub-clinical symptoms that only manifest after accidental damage or stress.

PSYCHOLOGICAL FACTORS AND WHIPLASH

Accident victims are generally in pain and distress and report genuine symptoms. Their psychological make-up will determine their behaviour and pattern of symptom reporting. These psychological factors are amenable to treatment that can result in the relief of physical symptoms as well.

An individual's response to his or her injuries may be influenced by harboured resentment of a problem someone else created, and the stress of associated litigation. It has been demonstrated that the stress of the legal process could influence treatment outcomes in accident victims. Pre-accident sub-clinical problems can become clinical after an accident. Clients may not regard these problems as new, or relate them to the accident, especially if the problems develop some time after the accident (Late Whiplash Syndrome).

People who have suffered a motor vehicle accident and whiplash have experienced a great deal of stress, especially in the first three-months and this anxiety together with stressful life events can lead to jaw pain and TMD[7].

Table 2: General, Early and Late stages of Whiplash.

STRESS

Many researchers have described the relationship between stress and increased jaw muscle activity called bruxism. Bruxism (night-time tooth grinding) becomes elevated in times of stress, and can cause muscle pain, tooth pain, headaches and jaw joint tenderness[8].

Bruxing is an unusual phenomenon; it can occur during all sleep stages but occurs disproportionately during the rapid eye movement stage (REM). It is frequently followed by a transition to lighter sleep and an increased heart rate! If a patient is actively bruxing then an attempt to alleviate their symptoms with dental splint therapy is indicated[9]. Splint therapy has a high success rate, approximately 85% and often this therapy requires a permanent change of the client's bite, by tooth reshaping (occlusal adjustment), or a full mouth reconstruction with crowns, in order to stabilise the TMJs. This final treatment modality is time consuming and technically demanding and claims in the region of £50,000 are not uncommon.

It is important that your clients receive appropriate professional advice, and an accurate diagnosis is established. If your client is mismanaged, and inadvertently told that therapy may be needed for months or years, with the possibility of permanent symptoms, their pain symptoms may be amplified and become resistant to treatment. In addition, if inappropriate treatment has been provided, with the best intention, patients become disillusioned with health care professionals, and sceptical of the benefits of further treatment modalities, no matter how qualified, or beneficial they may be.

CONCLUSIONS

In summary, expert witnesses are experienced in a particular field. They identify the pertinent issues, and provide an independent opinion based upon the facts of the case. Dental experts indicate if a case is strong or weak, they highlight issues that a solicitor may be unaware of, and their examination establishes a baseline recording of the client's current dental health status.

Trauma to deciduous teeth is often transmitted to the underlying developing permanent teeth. Complications usually consist of enamel hypoplasia (mal-formation). It is wise to reassess the adult teeth as they begin to erupt to identify any tooth abnormalities. These problems would not become evident until the teeth erupt and are visible. A well-designed follow-up schedule is desirable to diagnose late complications and ascertain the long-term prognosis.

Cosmetic dental treatment is usually necessary after trauma to permanent teeth. For example, a combination of tooth bleaching, white filling for minor problems, or veneers and crowns for major tooth defects.

Besides the obvious dental injuries, solicitors may be surprised to learn that whiplash victims may develop symptoms that are dentally related after motor vehicle accidents. An examination of the TMJs should be an integral part of any comprehensive evaluation of post motor vehicle accident cervical whiplash victims. Solicitor can screen whiplash suffers for dental injuries (teeth and jaw joints) after accidents using a simple questionnaire.

Claims of temporomandibular disorder (TMD) in individuals with whiplash can be expensive. People who have suffered a motor vehicle accident and whiplash have also experienced a great deal of stress. Anxiety and stressful life events can lead to jaw pain and TMD. In addition, bruxism (night-time tooth grinding) becomes elevated in times of stress, and can cause muscle pain, tooth pain, headaches and jaw joint tenderness. If a patient is actively bruxing then an attempt to alleviate their symptoms with splint therapy is indicated. A suitably trained restorative dentist or a prosthodontist can diagnose and treat these symptoms.

A selection of photographs.

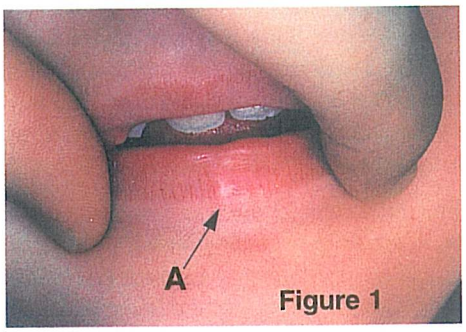


Figure 1.
This illustrates scar tissue (A) in the border of the lower lip of a young girl as a result of a laceration. This area of the lip has aesthetic significance because in adulthood women apply lipstick here and a visible defect would be undesirable.

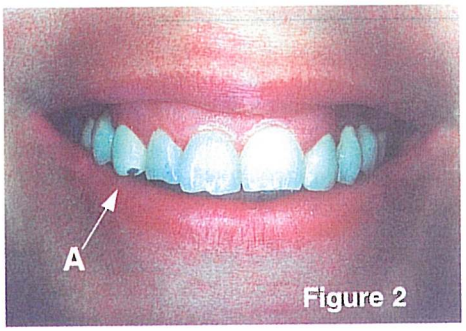
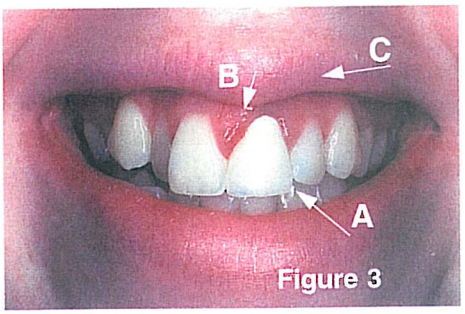


Figure 2.
The photograph illustrates fractured porcelain bonded to metal crown (A). The grey metal beneath the porcelain had been exposed and was cosmetically unacceptable. This adult patient had a high lip line, this meant that she exposed the gingiva (gum) above the upper teeth when smiling, speaking and laughing.



REFERENCES

1 Roberts JE. Wisconsin Interscholastic Athletic Association 1970 Benefit Plan Summary.

2 Maestrello-Demoya MG, Primosch RE, Orofacial trauma & mouth protector wear among high school varsity players. ASEDC J Dent Child 1989;56: 36-39.

3 Andreasen JO, Andreasen FM, Bakland LK, Flores MT, Traumatic dental injuries – a manual, Munksgaard – 1st edition

4 Gracia. R. Arrington. J.A. The relationship between cervical whiplash and temporomandibular joint injuries: An MRI study. The Journal of Craniomandibular Practice. 1996;14:233-239.

5 Garcia. R. Air bag Implicated in temporomandibular joint injury The Journal of Craniomandibular practice 1994;12:125-127.

6 Ferrari R, Leonard MS, Whiplash and temporomandibular disorders: a critical review. JADA 1998;129:1739-1745

7 Moody PM, Kemper JT, Okeson JP, Calhourn TC, Packer MW Recent life changes and myofascial pain syndrome. J Prosthet Dent 1982;48:328-330.

8 Pingitore M, Chrobak D, Petrie D. The social and psychological factors of bruxism. J Prosthet Dent 1991;65:443-6.

9 Wruble MK, Lumley MA. Sleep-Related Bruxism and Sleep Variables: A Critical Review. Disord Facial Oral Pain 1989; 3:152-158.

Figure 3.
This adult female patient presented after treatment had been provided to repair a fractured upper left central incisor tooth. The contour, surface texture and incisal edge translucency of the artificial crown (A) did not harmonise with that of the adjacent natural tooth. The replacement crown was not a good fit to the underlying tooth and had caused gingival inflammation (gum swelling) (B). This patient's high lip line (C) meant that providing dental treatment in this instance would be technically difficult and a replacement crown within this aesthetic zone would have to be functional and highly cosmetic too.

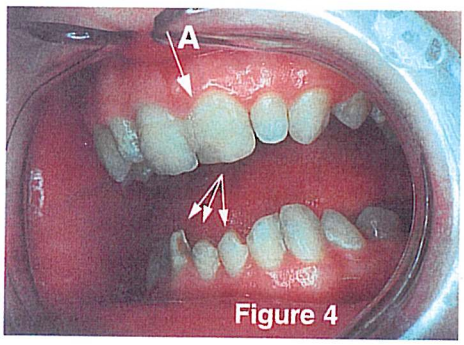


Figure 4.
This illustrates upper central incisor teeth (A) that had been splinted together for an excessively long period of time. This can cause ankylosis (rigid fixation) of the teeth to the jawbone, which is undesirable. The white filling material that had joined the teeth together had fractured and this material required removal. The lower front teeth were not damaged as a result of trauma; their condition was related to poor oral hygiene and dietary sugar.

The authors -

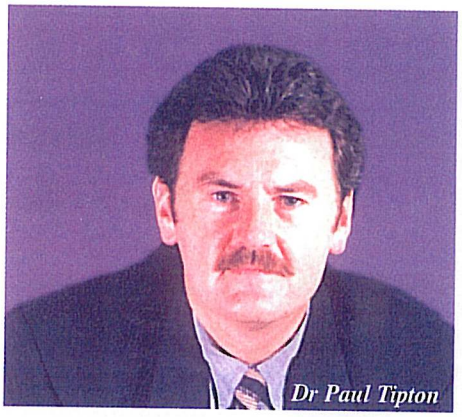
Dr Peter Smyth

Dr Peter Smyth is one of the expert witnesses at the St Ann's Dental Clinic, Manchester (0161 834 2627). He has a Bachelor of Dental Surgery degree from the Dundee University Dental Hospital and a Master of Science Degree from the University of Manchester Dental Hospital in Fixed and Removable Prosthodontics. His major interests are cosmetic dentistry, restorative dentistry and prosthetics (replacing missing teeth).

He is a trained expert witness by Bond Solon, the UK's leading expert training company, and writes approximately 6 to 8 reports per month. These reports are solicitor-friendly and include references to dental texts, and a glossary of terms that includes the more obscure dental terms. He is a member of the British Academy of Experts, the Expert Witness Institute and the Society of Expert Witnesses.

Dr Paul Tipton is an expert witness and the principal of the St Ann's Dental Clinic, Manchester (0161 834 2627). He has a Bachelor of Dental Surgery degree from the Sheffield University Dental Hospital, a Master of Science Degree from the London University of Dental Hospital (Eastman) in Conservative Dentistry. He was awarded the Diploma in General Dental Sciences from the Royal College of Surgeons of England and is a recognised Specialist in Prosthodontics by the General Dental Council.

He is a trained expert by Bond Solon, the UK's leading expert witness training company, and is a member of the British Society of Experts, the British Academy of Experts and the Expert Witness Institute. He has been carrying out expert witness work since 1985. His major interests are restorative dentistry, implantology, temporomandibular joint disorders and whiplash injuries. He maintains a private practice in Manchester and provides seminars for postgraduate dentists, around the country.



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MDL PERSONAL INJURY CONFERENCE

VILLARS, SWITZERLAND
27th March – 31st March 2001

Continued from page 1.

Villars
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Catherine Bond, Kate Hill and Suzanne Burn from *Bond Solon* will be managing the educational part of the conference. They will be running sessions on subjects such as "The Impact of The impact of the Human Rights Act on Medico-Legal Litigation", "Preparing your witness for cross examination", "Working with Report Providers" and "Successful Use of Expert Witnesses".

The cost of the 4 day conference including flights, accommodation, meals and educational sessions is £1,000 per person. MDL will be providing free or subsidised places to based on the number of instructions received by MDL Medical Reports. Each instruction received (and not subsequently cancelled) will attract one point. MDL will cover the costs for the conference for organisations achieving 500 points and part costs to those earning between 50 and 450 points.

The delegate package is based on single occupancy of a twin room and so second places can be reserved at a lower price if delegates are prepared to share rooms. Although MDL is not able to extend the subsidised travel scheme to include examiners, all are welcome to attend. Attending the conference would provide an ideal opportunity for examiners to meet with solicitors and insurers.

For further details about the conference please either complete the registration form and send to Julie Miles at MDL or telephone her on **020 8787 2072.**

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VILLARS, SWITZERLAND 27th ~ 31st March 2001

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