

Preference is given to letters commenting on contributions published recently in the *JRSM*. They should not exceed 300 words and should be typed double spaced

Neurological complications of cervical spine manipulation

The article by Clare Stevinson and others (March 2000 *JRSM*, pp. 107–110) demonstrates why research should be undertaken only by those who understand the field they are investigating. Throughout, they trivialize the role of manipulation and quote selectively: an important omission is the review paper by Haldeman¹, who as a neurologist and a trained manipulator is well qualified to comment.

Manipulation physicians have been aware of the complications of spinal manipulation therapy for more than five decades². The real difficulty has been in identifying suspect techniques; more than fifty cervical techniques are commonly used in today's practice. Stevinson *et al.* refer to a survey of California neurologists. The 91 patients reported in this paper³ did not, as they claim, have neurological defects only after cervical manipulation; this was the number who had defects after manipulation in any area—cervical, thoracic or lumbar. The US authors recognized the weaknesses of their study, including inability to verify responses and lack of information on pre-existing neurological details such as myelopathy, cauda equina syndrome, anticoagulant therapy, etc. In the British study, twenty-four respondents reported remembering 35 cases of serious neurological complication but only 16 of these cases could be remembered in enough detail to give even a scant description. A further case is totally erased from the paper. In only 2 cases is the manipulating profession identified—osteopathy and chiropractic, both professions that one of the authors, Professor Ernst, has confronted in the past.

In my chiropractic clinic I regularly treat patients with serious neurological defects, including absent reflexes; these patients are always referred back to their GP for orthopaedic assessment but many of them resolve before this assessment. At present we are treating a patient who has clear upper motor neuron signs and symptoms; we suspect cervical myelopathy, and with much coaxing she has now consented to return to the hospital. When she does show up at the hospital, will she be remembered by the consultant as a cervical myelopathy who had been treated by a chiropractor or as someone who had been correctly referred back to the GP? Before assuming a causative relationship, any investigator must examine the treating practitioner's case notes.

To gain anything out of a long-term prospective study, Professor Ernst and his colleagues must recruit onto their team manipulative experts from the four main fields. Some of the offending techniques have already been identified and

the manipulative schools now avoid teaching rotary techniques that include cervical extension. The Institute for Musculoskeletal Research and Clinical Implementation is planning a multidisciplinary prospective trial using Canadian Stroke Consortium data as a pilot study. I am sure that they would be happy to discuss any future research if the aim was to prevent these mostly avoidable problems.

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Several interesting points arise from the welcome paper by Clare Stevinson and colleagues. It is reassuring to be reminded of the rarity of these complications. Of course, all the disasters considered may occur without prior cervical manipulation, so the therapy may not be causal. Similarly, discomfort persisting after cervical manipulation may indicate no more than inefficacy of treatment; it is not necessarily a complication.

No mention is made of the appreciable number of doctors employing this therapy, nor of their training for it. Previous work¹ suggests that chiropractic manoeuvres are particularly hazardous. What manipulating doctors, physiotherapists, osteopaths and chiropractors do in practice shows remarkable similarities—although with considerable variation in emphasis on different aspects². Some techniques are very much better controlled than are others: of greatest significance, the terminal thrust must be of maximal speed and minimal amplitude. Perhaps most important is the dictum of not causing the patient pain on setting him up for manipulation. Contraindications to this therapy have been clearly detailed, and their rigorous observance is mandatory for any practitioner employing spinal manipulative techniques.

In over forty years' practice, I have no recollection of a complication arising from cervical manipulation. It would seem that the disasters are more likely to arise from manipulating the wrong neck than from any inherent danger of cervical manipulation.

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Authors' reply

The points raised in these letters largely echo aspects that have already been discussed in our paper, but certain elements must be addressed to ensure correct interpretation of the data.

Dr Paterson may have read more into our study than is warranted by the data. The association between spinal manipulation (SM) and neurological complications was not assumed to be a causal relationship. Survey data can not provide evidence of causality. We also do not perceive the study results as evidence of 'the rarity of these complications' since the survey was not designed to produce incidence data. Dr Paterson concludes that in 40 years of practice he has not seen a single serious complication of SM. The laws of probability mean that, if the actual incidence was 1 per 100 000, he would need to perform 300 000 manipulations to have a 95% chance of seeing a single such case¹.

Dr Cashley implies that we do not 'understand the field' we are investigating and believes that we trivialize the role of SM. The authors of our paper include a consultant neurologist and two physicians, one of whom has training and experience in SM. Research on manipulative therapies has been a major focus of our department since it was established eight years ago. Nowhere in the article is SM trivialized and papers were cited no more selectively than in any other journal article that is not a systematic review. We are very familiar with Haldeman's work and know him personally. We are, of course, also aware that manipulation practitioners have discussed complications of SM for many years and of the difficulties involved in isolating reliable risk factors. This survey attempted to provide no more than preliminary data for the UK on the existence of neurological complications following SM and suggests that the subject should now be more rigorously investigated. We agree that our planned long-term prospective study would benefit from the involvement of the different professions that practise SM, which is why we have invited the General Osteopathic and Chiropractic Councils and the Chartered Society of Physiotherapists to collaborate on this important project.

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The Good Soldier Švejk syndrome

We thank your correspondents for putting flesh on the skeleton we presented in our paper (January 2001, *JRSM*, pp. 22-25), and for illustrating the extensive knowledge of the *Good Soldier Švejk* (and Czech culture) among *JRSM* readers. We are taken to task for regarding Švejk as someone who had at least a *forme fruste* of psychosis as well as periods of being well, although we did not suggest he was learning-disabled (i.e. an imbecile). John Reed and Andrew Bush free him from any mental abnormality (March 2001, *JRSM*, pp. 156-157) despite his attraction to lunatic asylums where crawling naked, howling like a jackal, raging and biting were commonplace. However, the lifestyle of the Good Soldier could hardly be regarded as persistently and understandably normal, even in the repressive days of Emperor Franz Josef, and whilst it is comforting to believe that he was always a canny and insightful opponent of those who occupied his country, this belief is on a par with the Laingian dogma that schizophrenia was a 'normal' escape from the repressive double-bind of conflicts in family and society. In any case, our humble guess is that Švejk would have much preferred to be regarded as partly mad rather than fully sane and if anyone had given him a certificate of sanity he would have interpreted it as failure on his part, even if it had been given to him by Tomáš Masaryk!

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The article by Professor Tyrer and his co-workers impels me to make some comments from my point of view as a compatriot as well as a physician and present the most prevailing Czech attitude to the personality, philosophy and activities of Josef Švejk.

At the time when Jaroslav Hašek prepared the manuscript of his *Good Soldier Švejk*, the Czech nation, as a part of the Austro-Hungarian Empire, suffered from oppression of all kinds (national, social, economic, religious and political). The Czechs were accustomed to the role of the oppressed for centuries. The intensity of the nation's reaction was inversely related to the pressure. The condition became fatal at the beginning of the war in 1914 when His Imperial Highness Franz Joseph I published the declaration *To my Nations*. Why should the oppressed Czech soldier, who did not consider Franz Joseph as 'his' emperor, die for a system which was thoroughly rotten and corrupt? The Czech feelings certainly did not correspond to the feelings of the Empire. Therefore, when Švejk's maid announced with horror that Ferdinand had been killed in

Sarajevo, Švejk asked who from his comrades of the same name had been killed. This event marked the beginning of Švejk's role as a 'good soldier'. He was absurdly obedient and his absurdity was destructive and in reality antimilitaristic. His philosophy toward the war was excellently described in the movie version: in a fierce battle, Švejk shouted, 'For Heaven's sake, don't shoot: there are people here!'.

In the context of the war, Hašek described in masterly fashion the individual personalities, their philosophies (mostly ridiculous), their weaknesses, their questionable moral standards, their low level of education as well as their place in the social structure of the Austrian army. He was unmerciful to all military persons—including generals and even the Emperor. He made fun of all military nonsense, contraventions, demagogy. All this was well interpreted by a Czech citizen who felt the same but was unable or afraid to speak up. The imperial machinery was well aware of this socially pathogenic ideology but was defenceless. It was an antimilitaristic philosophy—a philosophy of absurdities against which all weapons only multiplied its hidden significance and impact. The popularity of Hašek's Švejk increased by the way how Švejk presented himself. He was certainly not a dimwitted soldier even though his role appeared in many conditions as such. An insignificant Czech citizen began to identify with Švejk, and accepted his philosophy with pleasure and humour even after the war ended.

Second to the antimilitaristic ideology Švejk became an ideal critic of all administrative absurdities, whether in war or in peace. He symbolized the contrast between a single-minded citizen with his lifestyle at the beginning of the century and the administrative hierarchy and state power. It is true that Švejk sometimes exceeds the conventional social algorithms but he does it with unexpected acts which make fun of the bombastic dignity of those in power.

Hašek had put a third accent on what was lacking in the literature of his time. It was a light humour, fully comprehensible to all readers and enabling them to take their fate more easily. 'Nothing is basically important.' His good-hearted simple-mindedness is deceptive. He knows how to penetrate the concealed problems of society and 'lifts the way from even most closely guarded taboos', writes one 'Švejkologist' Radko Pytlík.

Švejk's humour has been valid under both Nazism and communism. It is still valid today in conditions where common sense is lacking. Švejk is certainly not a psychotic person. His philosophy is most easy to understand in certain geopolitical structures. It is an 'ism'. Not švejkosis but švejkism.

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BCG immunotherapy for superficial bladder cancer

Mr Lockyer and Mr Gillatt (March 2001 *JRSM*, pp. 119–123) refer to the importance of fibronectin in promoting adhesion of BCG to bladder tumour cells. The basic mechanism is likely to be the same for all types of BCG, since all are ultimately derived from the original developed at the Pasteur Institute. According to some reports, response rates are adversely affected by medications that interfere with clotting¹.

I am surprised that Lockyer and Gillatt ask their patients to retain intravesically administered BCG for only one hour. The manufacturers of Tice BCG (widely used in the UK as a 12.5 mg preparation) recommend two hours. Whilst some patients with irritative lower urinary tract symptoms will be unable to retain the preparation for so long, clinicians should bear in mind that the immunotherapeutic response depends at least partly on the time available for BCG to adhere to the bladder mucosa.

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The Mozart effect

I was pleased that Professor Jenkins referred to our work in his excellent short review (April 2001 *JRSM*, pp. 170–172). Our patients who showed a decrease in epileptiform activity were either in status epilepticus or in coma, so the easy explanation that they 'enjoyed' the music, proposed for other examples of the Mozart effect, should not apply. As Professor Jenkins points out, we have found a longlasting periodicity in the power of Mozart's music, seen also with JS Bach and his son JC Bach. Furthermore we have just analysed the melodic line and find that Mozart repeats his melodic line far more frequently than other well-known composers, but often in an ingenious manner reversing the notes. We feel that periodicity is the key or secret here and characterizes many brain and bodily functions.

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It is a matter of concern that most contemporary academic psychology focuses on cognition rather than on the emotions. Professor Jenkins reviews the putatively beneficial effect of Mozart's music on spatial ability. However

no-one doubts that civilized music beneficially affects the emotions too. So an important unanswered question arises: does uncivilized music *adversely* affect our emotions? I write as a cyclist who for 50 years has narrowly escaped death at the hands of London's motorists. My experience is that (those few) motorists listening to Mozart are a more docile safe lot than those listening to loud pop music. The causal nexus could lie in either direction, but might some 'road rage' be due to an overdose of pop music? It would be interesting to play loud music to motorists in a driving simulator. Would the music induce them to be even more willing to mow down the odd cyclist?

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Changing relationship between the public and the medical profession

Sir Donald Irvine got a number of things wrong in his Lloyd Roberts Lecture (April 2001, *JRSM* pp. 162–169). He was, I think, most wrong and most dangerously so in his understanding of Mrs (now Baroness) Thatcher's 'reforms' of the late 1980s: 'Mrs Thatcher... signalled that patients... had to come first'. The prospectus for the 'reforms' was indeed titled 'Working for patients', but practically all doctors and nurses knew well that for the past forty years that is what they and their predecessors had been doing or trying to do. The prospectus was so named in order to disguise the intent of the changes—namely, by privatization to relieve the State of much of the burden of maintaining a health service. Not all doctors perceived this at the time: some were persuaded by the prospect of advancement to give their enthusiastic support; others were glad of the opportunity to make money offered by the encouragement of private practice; others were so much terrified by the power of management that they abandoned their role as patients' advocates; many others had by then had enough, and just gave up the struggle.

Meanwhile, the advance of Thatcherism persuaded many in this country that there was indeed 'no such thing as society', and many others that the highest good was to be found in the accumulation of money. In the National Health Service, these changes, together with the subordination of the clinical to the managerial ethos, seriously damaged the standard of service offered to patients. Prospects for managers and for 'chief executives' in particular have, in contrast, greatly been improved.

Sir Donald and his colleagues must, I think, recognize that improvement in the quality of the service offered to patients will not be achieved by further regulation or by the creation of a new regulatory body every time something goes wrong. It will be achieved only when the primacy of

the clinical ethos is restored, when doctors learn again to regulate the conduct of their affairs, when undergraduate teaching and graduate training are reformed, and when management is restored to its proper role of facilitating clinical objectives. It may well be impossible to achieve all this within the Health Service as at present constituted, just as it is now plainly impossible to restore the efficient operation of the railways without radical reform of their administrative structure.

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Mastectomy retaining nipple as well as areola

Mr Gordon and his colleagues describe mastectomy with areola preservation (NEAT) in carefully selected cases, and point out the advantage of areola preservation for the patient (April 2001 *JRSM*, pp. 185–186). However, preservation of the outer nipple can further improve cosmesis without compromising oncological principles.

Experience with total duct excision has shown that a demarcation exists between the outer dermo-fibromuscular covering of the nipple and the central duct core. This plane may be utilized to remove the apex of the nipple containing the duct orifices, together with the central duct core, while preserving the outer nipple. This operation, designated 'core nipple duct excision', is readily combined with mastectomy. It leaves a diminished (but much appreciated by the patient) nipple in continuity with the areola.

The details of the operation and the relevant oncological considerations have been described fully¹. Case 3 in Gordon's paper would be eminently suited to this procedure, as would all cases where low-grade cancer is reasonably distanced from the nipple ducts, as required for the NEAT operation.

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Experience before medical school

In the *JRSM* last year, Sir David Weatherall¹ expressed concern about the narrow education of young people who enter medical school. One aspect is the possibility that they have chosen the wrong career and will eventually drop out.

The decision to study medicine is influenced by parents, teachers, friends or society. Many applicants do not

completely understand the responsibilities of physicians and cannot be sure they are suited to the profession. A knowledge of how medical personnel work in a hospital will help them make a good decision. In the academic year 2000, the Faculty of Medicine Siriraj Hospital declared that the 115 students selected by the Faculty and the other 115 students selected by the Ministry of University Affairs must have at least 10 days' experience in assisting the services of government hospitals. The 10 days do not need to be consecutive, must be completed during 10th–12th grade, and may be performed on either weekdays or weekends. It is up to the director of the individual hospital to consider how to optimize the student's individual experience. It is also at the discretion of the director to arrange work in the hospital for the students—to feed and converse with patients, retrieve patients in the outpatient setting, write transfer orders, assist doctors examining or treating the patients and so on. Students who live in provincial areas can contact hospitals near their homes while those who live in the Bangkok Metropolitan area can work at Siriraj Hospital.

When students complete their experience in the hospital, they will receive a certificate from the hospital director. They will then be asked to submit this certificate along with all required documents when they apply to take the entrance examination organized by the Faculty and by the Ministry of University Affairs. The Faculty has been developing this project for eight years with successful results.

From personal experience I can say that this project is successful. My second daughter was keen to study medicine and applied for this project; however, after only three days of experience she realized that the medical profession was not for her, and she is now a successful accountant. My youngest daughter likewise entered the project and loved it. She is now a fourth year medical student with a good academic record.

Acknowledgment I thank Sir Iain Chalmers for encouraging me to write this letter.

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Whiplash injury

May I reply to some comments generated by my paper on 'whiplash injury'¹? Dr Sweetman (December 2000 *JRSM*, p. 662) emphasizes careful examination particularly at C1

and D3, confirming the sometimes involvement of thoracic segments. Mr Morrison (February 2001 *JRSM*, p. 102) notes that most neck sprains heal within an expected time-span. In 1959, Martin² suggested six weeks. It is hard to believe that minor neck sprains following minor motor vehicle impacts continue to produce significant symptoms for months or even years from purely organic factors. Careful history-taking and reading of general practitioners' regular case notes recorded before the accident may help solve the puzzle³. Morrison points out that there is always a psychosocial factor in illness or injury (as Balint⁴ had noted previously). He also states that experts rarely follow up the patients they prepare reports upon. They may not always well understand the natural history of these injuries.

Dr Mendelson (February 2001 *JRSM*, p. 102) correctly notes Crowe's earlier use of the unfortunate term 'whiplash' at a 1928 conference. Space limits one's ability to acknowledge all prior work. I submitted my article before publication of the paper by Cassidy *et al.* revealing the effect of reducing compensation in whiplash cases⁵. However, I did note the study by Partheni *et al.* on 130 Greeks with whiplash injury who improved far more rapidly than patients in countries who hear 'frightful diagnoses' and are overtreated⁶. Both Morrison and Mendelson consider litigation harmful.

Mendelson stresses the importance of recognizing a biopsychosocial paradigm in illness. I agree. When we consider biological, mechanical, psychological and social factors more equally in whiplash injury we will help our patients more⁷.

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