



## Letters to the Editor

### 'Camel collision as a major cause of low cervical spinal cord injury'. *Spinal Cord* (1998) 36, 415–417.

Thank you for publishing the above article in this month's issue. Since having carried out the initial study which was submitted to the journal for publication in February 1997, we have looked in more detail into camel collision accidents in Saudi Arabia. We have had the opportunity of reviewing the statistics of the General Traffic Office, Ministry of Communication and Planning and have also looked at our statistics more rigorously.

Following are some of the interesting and relevant information which your readers may find useful.

- 1 During the literature search for a more extensive research on the car collision with camels we found an interesting article which was published in 'Injury' last year, thus negating our claim that no study has been published before us.<sup>1</sup> Here we may add that our article was submitted to the *Spinal Cord* in February last year and had already been presented at the GCC Rehabilitation Meeting in Kuwait around that time.
- 2 Your readers may find it interesting that although none of our patients died after camel collision, in the last 6 years, 619 deaths and 3530 injuries have been recorded from camel collision. The total number of camel collision vehicle accidents in Saudi Arabia during the last 30 years were 7883. The injuries are four times and deaths six times more common in accidents resulting from camel collision compared to other causes of accidents.<sup>2,3</sup>
- 3 During our rigorous record search and data analysis for more comprehensive study about camel accidents, we have found some minor statistical errors regarding number of patients sustaining cervical spine injuries after camel accidents. Some of the data that we analysed was lacking the accurate account of the accident. This has been an inadvertent error which we regret, but does not however in any way undermine the problem that we highlighted and face so often in this part of the world.
- 4 During our retrospective analysis of the dorsal spinal injury we found four patients had sustained a direct impact to the back and chest resulting in paraplegia from these accidents. Dorsal spine injuries are much less common than cervical spine injuries. Most of the dorsal spine injuries have occurred because of the lateral lying posture adopted by the victims trying to protect themselves from the crashing animal.

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## References

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- 2 Al Ajmi A, Fehlesson K. Accidents with animal. Unpublished report; Ministry of Communication, Riyadh, Saudi Arabia; 5p (1987).

3 *Animal Statistics of traffic accidents in Saudi Arabia*: 1391H–1417H (1971–1996); General Traffic Office, Riyadh, Saudi Arabia.

### Life expectancy in traumatic spinal injuries

The life expectancy of patients with traumatic spinal injuries is a subject of continuing interest, particularly from the medico-legal aspects, since the longer the patient survives, the greater the costs of care and consequently the greater damages awarded.

Over the years there have been many papers produced. However, as different methods of classification have been used, it makes it almost impossible to compare the results since by judicious selection of papers, anything can be argued.

I have come across many extraordinary statements — patients with spinal injury being given a longer life expectancy than a healthy man of a comparable age and patients on ventilators being said to have a normal life expectancy. Spinal injury is obviously a life enhancing situation.

The latest research by Coll *et al*<sup>1</sup> and Yeo *et al*<sup>2</sup> make an attempt to improve on previous papers but unfortunately fresh methods of classification are adopted by both authors. The Coll paper excludes deaths in the first year, usually accepted methodology. The Yeo paper excludes deaths in the first 18 months. As Yeo says one of the aims of his paper is to 'compare these results with other reported studies', this poses problems.

The Coll paper suggests a new grouping of all the incomplete cases ie that all D cases whether they be from C1 to S5 should be grouped together stating: 'The subgroups comprising the paraplegia incomplete group are homogenous and can be combined'. A comparison of this new grouping with the two traditional schemes is presented. The paper goes on to say: 'It should be noted that the construction of these groups was arbitrary and may not be optimal since there are many combinations of subgroups that could have been combined'. This grouping scheme may not be appropriate if mortality is being assessed from the day of injury rather than for first year survivors. In addition, since this grouping strategy has not been validated on an independent sample, caution should be used when applying this scheme to other populations'.

This D grouping would include patients with extension injuries of the cervical cord resulting in the central cord syndrome. They have almost normal recovery of power and sensation in their lower limbs but they have a particularly high mortality. I found<sup>3</sup> in 51 extension injuries, a late death rate (that is deaths after 3 months) of 24%. This was elaborated in a specific study of 75 extension injuries when there were nine deaths after 1 year.<sup>4</sup> Hardy<sup>5</sup> and Watson<sup>6</sup> have also commented on this high mortality in extension injuries of the cervical cord.

I would suggest that this group of injuries be analyzed separately.

I do not believe you can average up such different survivals as an incomplete tetraplegic with an incomplete

paraplegic since previous research by Whiteneck *et al*<sup>7</sup> shows that at every age the incomplete paraplegic has a better life expectancy than the incomplete tetraplegic.

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- 2 Yeo JD *et al*. Mortality following spinal cord injury. *Spinal Cord* 1998; **36**: 329–336.
- 3 Silver JR, Gibbon NOK. Prognosis in tetraplegia. *Brit Med J* 1968; **4**: 79–83.
- 4 McMillan BS, Silver JR. Extension injuries of the cervical spine resulting in tetraplegia. *Injury* 1987; **18**: 224–233.
- 5 Hardy AG. Survival periods in traumatic tetraplegia. *Paraplegia* 1976; **14**: 41–46.
- 6 Watson N. Pattern of spinal cord injury in the elderly. *Paraplegia* 1976; **14**: 36–40.
- 7 Whiteneck GG *et al*. Mortality, morbidity and psychosocial outcomes of persons spinal cord injured more than 20 years ago. *Paraplegia* 1992; **30**: 617–630.

### Prolonged penile erection association with terazosin in a cervical spinal cord injury patient

We report the occurrence of prolonged penile erection following ingestion of 2 mg terazosin in a patient with cervical spinal cord injury. A 20-year-old white male sustained C-6 complete tetraplegia while playing rugby in 1978. The neuropathic bladder was managed by intermittent catheterisation during the day, and penile sheath drainage during night. When he went on holiday in 1998, an indwelling urethral catheter was inserted. When he returned home, the catheter was taken out, but he experienced violent headache while passing urine. Therefore, a Foley catheter was reinserted; he was prescribed terazosin 1 mg *nocte*. He did not experience any side effect of terazosin during the first 4 days. On the fifth day, he increased the dose of terazosin to 2 mg *nocte*. Two hours after taking terazosin, he noticed full erection of the penis. Prior to this episode, he had not indulged in any visual or physical activity which could arouse penile erection. As the penile erection persisted, he contacted the spinal injuries unit. He was reassured that usually this side-effect of penile erection would be transient and self-limiting. However, if penile erection persisted for more than 6 h, he should come to the spinal unit for penile aspiration. If complete detumescence is not achieved by penile aspiration, he would require intra-cavernosal injection of phenylephrine. Fortunately, penile erection subsided after 5 h in this patient. He was advised to stop taking terazosin and was not prescribed any other alpha-blocker, as he might be prone to develop priapism with any of the alpha-blockers.

Priapism is a rare side-effect of alpha-blockers in therapeutic doses. The mechanism for this side-effect of

prolonged penile erection is related to blockade of post-synaptic adrenergic receptors, allowing parasympathetically-mediated erection.<sup>1</sup> The Committee on Safety of Medicines has received a report of priapism in a 70 year-old male who was prescribed Flomax (tamsulosin) 0.4 mg. Priapism occurred 2 days after commencement of treatment with Flomax. No other reason for priapism was found in this patient. The outcome of this suspected adverse event is not known. Apart from this solitary report of prolonged penile erection associated with Flomax therapy, the reports of erectile dysfunction associated with selective alpha-blocker therapy show that the patients taking tamsulosin, doxazosin, alfuzosin, or terazosin were experiencing erection *failure* rather than *prolongation*.<sup>2</sup>

Sudden onset of persistent penile erection in patients with spinal cord injury may create unique problems. Urethral catheterisation may be difficult in the presence of penile erection. Therefore, those patients who are on intermittent catheterisation regime may face an emergency situation for drainage of the urinary bladder. A distended bladder could provoke autonomic dysreflexia in a susceptible patient. Patients who are on indwelling urethral catheter drainage may experience a bow-string effect when the penis remains erect for a prolonged period; this could result in traumatic hypospadias. In patients with penile sheath drainage, prolonged penile erection could produce tension on the penile sheath with consequent damage to the penile skin. Thus prolonged penile erection may initiate a cascade of events in patients with spinal cord injury and tetraplegia; such events may be unheard of in able-bodied individuals developing prolonged penile erection.

Tetraplegic patients who are susceptible to develop a vast array of complications within a short time period, should be able to activate an emergency facility to obtain prompt medical care when they develop serious adverse effect to any of the drugs which have been prescribed to them for their complex medical problems, be it intrathecal baclofen, or terazosin for control of autonomic dysreflexia. The regional spinal injuries centre should be geared to provide 24 h emergency medical advice and treatment to patients with spinal cord injury. Arrangements for provision of such a facility should be included in the annual contracts for delivery of comprehensive health care by the spinal injuries centre.

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