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## LETTERS

### Accessory nerve injury during amateur wrestling: silent but not overlooked

A 17 year old youth presented complaining of vague chest and back pain. His medical history was unremarkable except for a sports injury three to four months previously. The injury occurred during wrestling when his opponent had fallen on his chest and neck region. On physical examination, we noted an asymmetric neckline on the right, the result of atrophy in the superior portion of the right trapezius muscle. Neck and bilateral shoulder movement, both passive and active, were not limited and were painless. There were no functional deformities such as winging scapula or drooping shoulder. No loss of motor function was detected in the right sternocleidomastoid muscle or during right shoulder elevation. Radiographic examination produced no relevant findings. We next performed electromyography (EMG), the likely diagnosis being an injury to the right accessory nerve. The needle EMG was consistent with an almost completely regenerated upper portion of the trapezius muscle compared with the contralateral side. The patient was given a regimen of shoulder strengthening exercises and followed up.

The superficial course of the spinal accessory nerve in the posterior cervical triangle makes it susceptible to injuries. The most common cause is an iatrogenic injury during surgery. Donner *et al*,<sup>1</sup> in a series of 83 patients with extracranial spinal accessory nerve injuries, reported the underlying causes to be lymph node biopsy in 42 cases, tumour excision in 14 cases, and carotid endarterectomy, face lift surgery, and irradiation (one case each). They also summarised the other causes as: traumatic, 13; stretch/contusion, 6; stab or glass wound, 1; shotgun, 1; compression, 1; weight lifting, 1; Hansen's disease, 1; mononeuritis, 1.

The accessory nerve is a motor nerve which innervates the trapezius and the sternocleidomastoid muscles. Interestingly, injury to this nerve does not usually result in functional loss of the latter muscle. This is usually attributed to the fact that the nerve is usually injured in the posterior triangle after it has innervated the muscle and/or the observation that the muscle receives dual input from the accessory nerve and the cervical roots.<sup>1</sup> Consequently, patients present with an ipsilateral trapezius palsy—that is, an asymmetric neckline, a drooping shoulder, winging of the scapula, and weakness of forward elevation<sup>2</sup>—immediately after or within one week of the trauma.<sup>1</sup>

Patient evaluation entails electrodiagnostic studies in addition to the clinical findings, EMG often showing an increase in polyphasic waves and decreased recruitment.<sup>3</sup> Ultrasonography has recently been proposed as an adjunct in the diagnosis.<sup>4</sup> Because of untoward consequences in chronic cases, surgery is recommended if patients fail to improve after one year of conservative treatment.<sup>2,5</sup>

We consider this case to be noteworthy in certain aspects. Firstly, the patient did not present with a trapezius palsy; it was a late silent physical finding that we uncovered. Secondly, as in a few of the cases in the above series,<sup>1</sup> only the upper trapezius atrophy was present which did not preclude shoulder function. This is usually because there are other innervation sources or because of the presence of a divided accessory nerve.<sup>1,6</sup> Thirdly, we believe that our case implies the likelihood of a relatively benign course in younger patients. Lastly, together with another case report of a wrestler,<sup>7</sup> the possibility of this type of injury occurring during sporting activity is highlighted. We therefore alert sports physicians to such a clinical scenario, for which prompt evaluation and management should always be the prerequisite.

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### Applying elite research to the general population

We are writing in response to the letter by Dr Webborn<sup>1</sup> about our circadian research on competition swimmers.<sup>2</sup> His first comment, namely that the media may wrongly slant a “take home message”, is understandable. Had he read our message more carefully, he would have seen that we noted that our observation—that there is a morning lowering of IgA and an increase in cortisol—“might not be acceptable to elite competitors”, and that we strongly qualified it by considering that early morning sessions should: “perhaps be avoided by those returning to training after injury or illness, those close to periods of important competition (which are more associated with the underperformance syndrome)

and possibly those at altitude, which itself imposes a degree of immunosuppression.” All very carefully displayed in the take home message. We three authors have been involved in the preparation of elite competitors collectively for many years, and we stand by those cautionary statements.

Dr Webborn is, importantly, interested in the potential health benefits of recreational exercise to an “active population”, and makes the very valid point that trivial risks of illness, as might be investigated in elite athletes, should not deflect exercise for the vastly greater public good. However, our work was concerned with well trained competition swimmers, a point that we emphasised to the media. A major thrust of sports medicine is that it sometimes looks at clinically trivial conditions—for example, ankle or wrist sprains—which may be anything but trivial to the sports competitor. More specifically, modest levels of weekly exercise may be immunoenhancing, whereas there is much evidence that elite levels of endurance training may be immunosuppressive,<sup>3</sup> so one always has to be careful which message applies to whom.

In his second comment, Dr Webborn reasonably queries the hydration status of our subjects. Naturally, on working with salivary flow, we had considered this also, in terms of subject behaviour at 24, 12, and 8 hours before testing, as is indicated in our experimental design. There were no “dry mouths”.

However, overall, Dr Webborn has a possible point about media misuse of take home messages, and perhaps the editorial board could discuss this, if it is felt to be an issue.

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#### Editor's response

The role of the Journal's “take home message” had been under review for some time before this correspondence. It has already been decided that it will be changed to a highlighted box encapsulating “what is known about the topic” and “what this paper adds to the body of knowledge”. This will be similar to the current layout in the *British Medical Journal*, and our technical editors have been developing a format to suit the Journal style. This correspondence has simply highlighted an important consideration of the Journal, namely how we deal with the media in a clear, concise, and appropriate way.

### Response to “Berger in retrospect: effect of varied weight training programmes on strength”

I would not have believed in 1962 that my study<sup>1</sup> would have created such a brouhaha in