

vegetative state, rather than on the shoulders of those wishing to continue such treatment.¹ As pertinent case law continues to evolve in America, however, this presumption, and accompanying burden, may be in danger of disintegrating. In this vein, one commentator has, indeed, espoused the view that it should be presumed that patients in a persistent vegetative state would not want to be kept alive indefinitely; and families objecting to the discontinuation of treatment would have the burden of showing why treatment should be continued after a specified time sufficiently long to establish irreversibility with high certainty.⁴

At this time juncture, however, the divisive legal, bioethical, and social issues emanating from cases involving a persistent vegetative state remain far from resolved; and continue to be considered on a piecemeal, or case by case, basis. In several very recent cases involving "medical futility", including one involving Baby K⁵ and another involving Baby Ryan,⁶ American courts have upheld the right of family members to insist on continued treatment over the objections of hospitals and doctors embracing a futility argument. Incidentally, healthcare providers in America who object to providing medical services which they claim are futile run a grave risk of being publicly charged with hypocrisy, or at least gross inconsistency. This is because medical services in the United States traditionally have been regarded as being simply another economic commodity, and have been dispensed based on ability to pay, rather than medical need. To embrace a differing mentality affecting, for example, patients in a persistent vegetative state, would constitute an obvious, and striking, departure from the accustomed path.

British courts have also been wrestling with contentious issues involving patients in a persistent vegetative state.² In a case involving a young man named Anthony Bland, in a persistent vegetative state as the result of a disaster at a football ground, the House of Lords sought to clarify the state of the law affecting the care of a patient in such a state. Their Lordships approved the withdrawing of artificial feeding; and the patient succumbed shortly afterwards. This case represents the first time an English court has riveted attention on the question of circumstances which may lawfully empower a physician to discontinue life sustaining equipment, including hydration and nutrition. Uncertainty lingers, however, regarding the withdrawal of care from patients who are incompetent, but not in a persistent vegetative state.

The weighty ethical, social and legal questions inextricably intertwined with the dilemma of the persistent vegetative state will not be resolved in the absence of embellished understanding of the attendant issues. The challenge now is to push ahead with robust debate of such issues, in both public and professional forums.

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1 Kennard C, Illingworth R. Persistent vegetative state. *J Neurol Neurosurg Psychiatry* 1995;59:347-8.

- 2 Uzych L. End-of-life decision making and developing international law. *Pennsylvania Medicine* 1994;97:16-18.
- 3 Uzych L. Advance directives and the critically ill. *Southern Medical Journal* 1991;84:540.
- 4 Angell M. After Quinlan: the dilemma of the persistent vegetative state. *N Engl J Med* 1994;330:1524-5.
- 5 Capron AM. Medical futility: strike two. *Hastings Center Report* 1994;24:42-3.
- 6 Capron AM. Baby Ryan and virtual futility. *Hastings Center Report* 1995;25:20-1.

Pretarsal injection of botulinum toxin for blepharospasm and apraxia of eyelid opening

Aramideh *et al*¹ recently reported the results of botulinum toxin type A (BTA) treatment in patients with isolated blepharospasm or a combination of blepharospasm and "involuntary levator palpebrae inhibition". They concluded that the addition of two injections into the pretarsal portion, lateral and medial, of the upper eyelid to two injections into the junction of the preseptal and orbital portion of the upper eyelid, and one injection into the lower eyelid improved the beneficial response from 81% to 95% and prolonged the mean duration of benefit from 8.5 weeks to 12.6 weeks.

Our long term experience with pretarsal injections seems to support their findings.² We have used this approach in over 300 patients treated for blepharospasm in our movement disorders clinic since 1983 and have also obtained a successful response rate of 95%. More recently, we have conducted a "single blind", controlled study comparing the effects of injecting BTX (BOTOXTM, Allergan) in the medial and lateral segments of the preseptal versus pretarsal portion of the orbicularis oculi in 14 patients with blepharospasm.³ The pretarsal portion of the right eyelid and the preseptal portion of the left eyelid were injected with the same dose of BTA found to be effective in relieving blepharospasm during previous treatments. The mean dose per eyelid was 10.7 (range 5-15) mouse units. There was no difference in response between the two sides (latency: 6.4 days, peak effect: 3.9, mean duration of maximum benefit: 13.5 weeks, mean duration of total benefit: 16.2 weeks). Although eight patients reported ptosis in the left eye (preseptal), none had complications in the right eye (pretarsal) during the follow up period (3-5 months). The ptosis lasted a mean of 31.9 (range 14-64) days.

These findings strongly support the conclusion that BTA injections into pretarsal eyelids are associated with higher efficacy and lower frequency of complications than injections into the preseptal or orbital eyelids. Four patients of Aramideh *et al*¹ who initially failed to respond to preseptal-orbital injections, but later improved with pretarsal injection, were found by EMG to have "involuntary levator inhibition" in addition to blepharospasm. We have also found that pretarsal injections of BTA are very effective not only in patients with blepharospasm, but also in patients with apraxia of eyelid opening (eyelid freezing), particularly when the involuntary eye closure is associated with or "triggered" by blepharospasm.

In our opinion, pretarsal injections of BTA into the upper eyelid are sufficient to obtain optimum results in patients with blepharospasm and eyelid freezing. There is usually no reason or need to additionally inject the preseptal or orbital portion of the orbicularis oculi. Our results are similar to those of Aramideh *et al*,¹ even though we have not employed an EMG guided approach. It is unlikely that the use of EMG would further enhance the already highly successful response rate.

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- 1 Aramideh M, Ongerboer de Visser BW, Brans JWM, *et al*. Pretarsal application of botulinum toxin for treatment of blepharospasm. *J Neurol Neurosurg Psychiatry* 1995;59:309-11.
- 2 Jankovic J, Schwartz K. Longitudinal follow-up of botulinum toxin injections for treatment of blepharospasm and cervical dystonia. *Neurology* 1993;43:834-6.
- 3 Jankovic J. Apraxia of lid opening. *Mov Disord* 1995;10:686-7.

NOTICES

Announcement from the British Neuropsychiatry Association: 1996 summer meeting

The 1996 Summer meeting will be held on 14-16 July at Robinson College, Cambridge. It will include topics on neurodevelopment, language, and the presentation of short scientific papers and single case videos by members. The Association's AGM will be held on 16 July.

For further details of these meetings please contact: Sue Garratt, Administrative Assistant, BNPA, 17 Clocktower Mews, London N1 7BB. Telephone/Fax: 0171 226 5949.

For details of membership of the BNPA, which is open to medical practitioners in psychiatry, neurology, and related clinical neurosciences, please contact: Dr Jonathan Bird, Secretary BNPA, Burden Neurological Hospital, Stoke Lane, Stapleton, Bristol, BS16 1QT. Telephone: 01179 701212 ext 2925/2929 or Sue Garratt at the address given above.