Commentary: Surgery to quieten the yelling of a demented old man

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The interesting case of Mr B raises the specific issue of how best to treat a noisy demented patient, and the broader, more complex question of how vigorously to treat intercurrent illness (in this case pneumonia) in those with advanced senile dementia.

Constant disruptive yelling is one instance of the kind of undignified behaviour which the elderly person has a fear of developing if dementia occurs. The argument that the demented patient will be unaware of the distress he causes will not reassure the non-demented elderly: 'Much of the fear of senility is not concerned with self, but rather with the unwitting exhibition of antisocial behaviour to those whose sensibilities the 'real' self would want to protect' (1). There can be no doubt that the 'mild-mannered . . . kind and quiet man' who was Mr B would have been appalled by the prospect that he would end his days in such a noisy state as to threaten the emotional stability of his wife, other care-givers, and fellow patients. Mrs B was clearly very distressed by her husband's uncharacteristic behaviour.

On the specific question of treating the disruptively noisy senile patient, there are several alternatives. In almost every case the only treatment necessary would be sedation by drugs given orally, failing which they could be given by intramuscular injection. It is interesting, if not surprising, that Mr B's yelling failed to respond to 'a host of pharmaceutical and behavioural interventions'. The drugs used are not specified, but it is reasonable to conclude either that the drugs selected were inappropriate, or (more probably) that the dosages were inadequate. It may well be that a decision was taken that sedation would be used only in so far as it did not produce long periods of unconsciousness. This defensive approach would avoid the ethical problems of the 'double effect' in which the control of a symptom (usually pain, but in this instance yelling) can be achieved only at the expense of risking a serious complication, most commonly pneumonia.

In practical terms it is almost inconceivable that a frail, demented man of 84 could not be rendered quiet by sedative drugs given in appropriate dosage. And so

it can be surmised that the drug interventions were 'totally unsuccessful' because of the unspoken ethical dilemma of how to achieve symptom control without risking the patient's life. It will be argued later that such an approach, although understandable, is mistaken for several reasons, but principally because it fails to clarify the aims and expectations of medical treatment in the elderly demented patient.

A second alternative to drug treatment is to accept the high noise-level but to make it inaudible to other patients and care-givers. Some geriatric units contain sound-proof rooms in which to house very noisy patients, and it is a matter of personal opinion whether this represents a civilised advance in geriatric care, or a reversion to fifteenth-century bedlam cloaked in the respectability of twentieth-century technology.

The third alternative of crushing a single recurrent laryngeal nerve is interesting, but in terms of practical surgery it may be far from simple. The recurrent laryngeal nerve is placed deep in the neck between the trachea and the oesophagus, and accidental damage to the nerve is widely recognised in thyroid gland surgery. The frequency of vocal cord palsy due to recurrent laryngeal nerve damage during thyroid surgery is variously recorded as 0.3–13.2 per cent (2), and testing the mobility of the vocal cords is routinely done by laryngoscopy at the end of thyroid operations. All of this indicates that, even in experienced hands, clear identification of the recurrent laryngeal nerve may be difficult. The task would be rendered much more difficult, and probably dangerous, by attempting it under local anaesthesia in a noisy and unco-operative patient.

A well-known hazard during the feeding of frail elderly patients is the aspiration of food or fluid, and the subsequent development of aspiration pneumonia. The risk would be greatly increased by the immobilisation of one vocal cord by recurrent laryngeal nerve crushing. In the case of Mr B, his already evident tendency to develop pneumonia would have been aggravated. As a practical procedure for silencing a noisy but frail patient, the much more common operation of tracheostomy would be simpler, safer, and more effective. Whether it would constitute sensible medical practice is open to question, but tracheostomy would have the added advantage of being

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easily reversed if circumstances changed.

But a commentary on the case of Mr B would remain superficial if it only addressed the pros and cons of surgical intervention as a means of treating the patient who is allowed to yell more or less constantly over a period of some months. The analogy with psychosurgery is not entirely valid, and reference to laryngeal nerve crush as 'a behaviour-change operation' is inaccurate. A better analogy would be with permanent nerve block in, for example, terminal malignant disease: the intention is to relieve a symptom and only indirectly to alter behaviour. Mr B's behaviour would have been completely unchanged by laryngeal nerve crushing: he would have been the same severely demented, unknowing old man, but when he opened his mouth to yell every few seconds the relative silence would have been more tolerable. The symptom would have been treated; the behaviour would have been unchanged.

The issue of laryngeal nerve crushing in Mr B is something of a diversion. A more relevant matter is the broader question of the aims of medical care in severely demented patients. By any standards Mr B was severely demented. The criteria for determining the stage in a dementing illness have been greatly improved in recent years, notably by the use of such measurements as the Global Deterioration Scale (GDS) (3) and Functional Assessment Staging (FAST) (4). By the use of observations from several thousand patients, these scales can allow not only accurate staging but also the capacity for clearer predictions of outcome. By the Reisberg scales (GDS and FAST) Mr B was in the final stage of dementia (stage 7) and was probably in substage 7e or 7f.

The ability to quantify the degree of dementia has the important consequence of allowing a hardening of hitherto 'soft' data (5). Estimates of quality of life and prognosis no longer have to suffer the criticism of being vague and meaningless, because in the context of senile dementia, such observations will allow reasonable precision in establishing a sensible and sensitive course of medical action.

We know that only a few months before his death Mr B was 'incontinent of bowel and bladder, losing weight, and subject to recurrent pneumonias'. Mr B's pneumonias most probably were recurrent because earlier episodes of pneumonia were treated – he is unlikely to have recovered spontaneously. If the justification for this was that it would have been unethical not to treat the pneumonias, then why did he ultimately die of pneumonia? The logic of the argument that pneumonia should always be treated, regardless of the circumstances, is that every conceivable treatment should be brought to bear – including intensive ventilator care. This highlights the nonsense of the argument, and it forces an admission that decisions not to treat are a regular feature of medical practice. What is worrying is not the ethics of non-treatment decisions but the manner of reaching these decisions, aptly described as being 'subjective,

capricious, and guilt-ridden' (6,7). The point is that many modern diagnostic and prognostic methods can be and should be used to define when it is reasonable to withhold treatment. For example, the use of the APACHE score (acute physiological and chronic health evaluation) has transformed the way in which difficult ethical decisions are made in intensive care units in the USA and Britain (8,9).

In an approach to the demented elderly which is similar to the care of patients with advanced malignancy, there is much to commend the 'hospice' concept, which inversely relates the aggressiveness of treatment to the degree of dementia, while maintaining a constantly high level of general care (10). An integral part of the hospice approach is discussion of management with caring staff and relatives, and the supremacy is now widely recognised in the American literature of previous evidence that a patient would refuse treatment in certain clinical situations. Using Volicer's hospice approach, Mr B would have been placed, in consultation with Mrs B, in care level 4 or 5, in neither of which would he have received any antibiotics for even his first attack of pneumonia. Referring to dementia of the Alzheimer type (DAT), Volicer argues that both pneumonia and urinary tract infection are 'direct extensions of the DAT process', and that in advanced dementia '... it is not justifiable to treat a part of the disease process when treatment does not improve the general condition of the patient' (10).

The outstanding unresolved problem is that of knowing when the now incompetent patient might have refused treatment, given prior knowledge of what lay ahead. There was an 'absence of written evidence attesting to Mr B's wishes in such a situation', and so we are left to speculate upon the possible influence that a Living Will might have had. There is clear evidence of Mrs B's concern to restore her husband to a more dignified state, and to do what would have been in keeping with his character. Mrs B's conscience and Mr B's medical management would have been greatly eased by a clear statement in writing of his wishes regarding treatment if he became severely affected by senile dementia.

On the difficult question of whether or not to give food and fluid by artificial means to demented patients, the New Jersey Supreme Court established three standards of evaluation for patients who will probably die within one year (11). A 'subjective standard' would be one which gave unequivocal evidence of the patient's wishes, and the most reliable method of providing this would be by a Living Will and/or the nomination of a proxy to speak for the incompetent patient. The other two standards were based upon indirect evidence and would be more difficult to define and implement. The definition of standards for the guidance of physicians, whether relating to the withholding of antibiotics, food, or fluid, would be greatly assisted by the existence of a valid Living Will, supported by the addition of a proxy power nominating

a trusted friend or relative.

Referring to Volicer's concept of a hospice approach to the demented elderly, a recent editorial by a distinguished geriatrician and ethical adviser states that the basic goal must be 'improving the patient's life, from the *patient's* perspective', and concludes that in making decisions to limit treatment, 'Error is possible . . . but equally serious errors are certain if society insists on a thoughtless presumption that sustaining life is always optimal care' (12).

Thus, there is a clear danger that talk of surgery to silence a noisy dement may be allowed to obscure the principal issues. These include clarifying medical priorities in advanced dementia and establishing valid systems for the representation of patients' own views on the sometimes conflicting need on the one hand to respect human life, and on the other to respect individual dignity and autonomy.

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