Neurosurgery in each individual case should be approved (according to the foregoing standards) by an independent body which comprises a multi-disciplinary legal and lay element.

It is only by strict adherence to conditions such as those set out above that contemporary psychosurgery could reasonably distance itself from the unhappy legacy left by its predecessors.

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Commentary

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I am pleased to have the chance of commenting on Mr Gostin's paper because the Geoffrey Knight Unit has found Mr Gostin's previous papers on ethical problems to be of considerable value. However, I feel rather less than enthusiastic about some aspects of this present review, and this perhaps for three reasons.

The first part is a review of the development of psychosurgery which follows our paper¹ but there are quite a lot of additions and different viewpoints expressed not all easily acceptable. For example, 'scientific psychiatry is not yet in a position to directly treat psychiatric illness solely through surgical intervention'. But what is 'scientific psychiatry' and what is the significance of 'solely'? In the next sentence we read 'cerebral sites (which are normal and healthy)'. But it is not at all certain why a lesion in the ventromedial quadrant of the frontal lobe so successfully treats severe depression. Neither the abnormality nor its location are known. So the question as to 'normal and healthy' tissue is irrelevant. The lesion probably interrupts a nerve pathway (possibly the fronto-thalamic radiation) in which case, while the structure of the site may be normal, it is likely that its function is not. Mr Gostin's next remark concerning 'fine distinctions between generalised alteration of behaviour or mood and treatment of an illness', suggests confusion as to normal behaviour or mood, as opposed to pathological behaviour or mood, the latter usually being regarded as an illness. No fine distinctions are needed. However, I would very much agree with Mr Gostin that psychosurgery can now be seen

'as an effective empirical treatment in narrowly limited circumstances'.

In discussing Fulton's famous paper, Mr Gostin writes about Fulton's 'most ferocious animals . . .' This is sensationalism because Fulton's report² describes the animals thus, 'One was a very affectionate animal (Becky) and the other a crotchety old maid'. These are fairly small points but, I think, important ones. In general, I feel that yet a further historical review was unnecessary and Mr Gostin may well have produced more interesting material had he criticised in detail one or two of the several historical reviews that have been published in recent years.

My second general point concerns the operations and assessment of their effectiveness. Under 'the renaissance of psychosurgery' the *Lancet*³ is quoted but the quotation is unfairly demolished by adding Dr Levy's criticisms. I would agree that in general, 'this is no field for the euphoric novice'. But we, in this Unit are not euphoric novices yet we can assert that the results can be excellent, a good improvement is usually permanent and 'on occasion almost miraculous.' The same, of course, could be said of electro-convulsive therapy when patients are suitably selected for the treatment.

Sometimes Mr Gostin involves himself rather too closely with medical matters. 'Psychosurgery is performed in cases (*eg* aggressivity) where it is even difficult to identify a medically accepted psychopathology'. He may not know that removal of an entire temporal lobe can be effective for aggressive behaviour associated with epilepsy. In addition, aggressiveness can be the result of a physical abnormality of the brain, as with tumours and head injuries sometimes. He appears to feel that 'aggressivity' is solely a psychological phenomenon. There is a rather similar point later on. 'Psychosurgery seeks to destroy certain parts of the brain which . . . appear structurally intact and normal'. As I have mentioned above, the author is confusing structural abnormality with functional abnormality. Stereotactic neurosurgery was a reasonably effective treatment for Parkinsonism, which I am sure Mr Gostin will agree is an entirely physical illness. Psychosurgery is carried out for similar reasons and current views about the aetiology of endogenous depression suggest that it may well involve a neurotransmission disorder as does Parkinsonism. From the study by Tooth and Newton⁴ Mr Gostin reports that 'Given the fact that the improvement rate of schizophrenics was negligible and the side-effect so substantial it was not to the credit of psychiatry or law that the procedure was not regulated'.

I view the introduction of the law into this situation with considerable apprehension, and I will mention this again later. In any case the paper quoted shows that of the schizophrenic patients about 30 per cent were in categories described as 'total recovery', 'social recovery', and 'greatly

improved'. These operations were used at a time when there were no neuroleptic drugs available. Anyone who has any experience of treating schizophrenic patients will realise the appalling treatment problem there must have been in dealing with such patients without effective psychotropic medication. Therefore the result of 30 per cent totally or socially recovered or greatly improved was at that time by no means 'negligible': it was regarded as very good indeed and the possibility of side-effects had to be related to the possibility of recovery or considerable improvement. This is a common problem in medicine and is entirely a medical matter in which the law has no place. Of course, standard prefrontal leucotomy became obsolete in the 1950s with the arrival of chlorpromazine.

Mr Gostin writes: "'Contemporary" psychosurgery is also used in the treatment of schizophrenia despite the fact that rarely is there any marked clinical improvement. Schizophrenia is an unusual indication for psychosurgery today but with good selection it is a reasonable therapy. In particular, Mitchell-Heggs, Kelly and Richardson report⁵ that of seven schizophrenic patients 86 per cent improved, although the criteria used for improvement in this paper is not as for most other reports. Finally, 'Psychosurgery presents a simplistic solution to complex problems . . .' Our experience is that when the operation is completely successful, as occurs in 50-60 per cent of our patients, then whether or not it is simplistic, it is a total solution to complex problems. Yes, the operation 'is a purely physical and temporarily discrete procedure where results' not only are expected to, but do flow from this single event. The reason is that psychosurgery is a physical treatment for what are now being thought of as a group of essentially metabolic diseases which present with prominent psychiatric symptoms.

I regard my third group of criticisms by far the most important because there are suggestions that there should be special monitoring of certain psychiatric treatments. I have already mentioned one aspect, which is that when Mr Gostin mistakenly stated that the improvement rate after prefrontal leucotomy for schizophrenic patients was 'negligible', he felt that the law should have intervened. Surely, the medical profession can manage without such intrusion. Indeed they did manage. The use of prefrontal leucotomy fell rapidly in the 1950s and although it is possible that some medically old-fashioned operations are being used occasionally there is a clear trend for the psychosurgical units to take over more patients.

Mr Gostin, obviously with the best of intentions, wishes to improve clinical practice with regard to psychosurgery. But he seems to want to do so through the law. Surely doctors can control their own profession? They always have done so, and doctors are intensely jealous of their right to be totally responsible for their treatment of their

patients and this must be preserved at all costs. Perhaps even worse than legal intervention, is the suggestion that a multidisciplinary review should be included. I presume this will be the usual collection of professions, probably including a social worker, a psychologist, perhaps a clergyman and so on. How will these other professions offer any more relevant or useful information concerning the possibility of psychosurgery for a given patient? The involvement of such a review committee could produce considerable difficulties for the patient. For example, a psychiatrist refers a patient to one of the psychosurgical units who agree to operate. The patient is then seen by a multidisciplinary committee who decide that the patient should not have an operation. Who is now responsible for the future care of the patient? On the other hand, if the multidisciplinary committee agrees that psychosurgery should be carried out and some serious complication occurs, who would be responsible?

I do not see that this paper has a great deal to do with ethics. It is largely concerned with an ethically difficult aspect of medicine, and the solution is not so much one of medical ethics (or of legal ethics) but the introduction of legal machinery into clinical decisions. This is beginning to spread in American medicine, in particular, and it is an undesirable trend.

An even more undesirable trend, which is typically American appears half-way through the paper. It is reported that, 'in the United States (these procedures are used) on minority groups and ghetto-dwellers'. Fortunately, this paranoid fear that minorities will suffer drastic physical treatments in

order to maintain social control over them is inconceivable in this country and Mr Gostin should clearly state its relevance to this article and to British practice. Also in this paragraph he has most unwisely associated 'vulnerable severely mentally-handicapped people', 'prisoners' and 'minority groups and ghetto-dwellers'. Surely there are major differences between the groups?

I do not have the slightest doubt that Mr Gostin's intentions are for the protection of vulnerable and even helpless patients. My feeling is that medical behaviour is adequately controlled by ethical means, which implies that the clinical practice of doctors is the responsibility of the profession. Mr Gostin seems to wish to use his profession to control mine and he wishes to interpose legal procedures between the patient and the doctor, thus undermining the patient-doctor relationship which is the foundation of medicine.

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