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MODIFIED LEUCOTOMY

For 20 years leucotomy has been practised in the treatment of certain mental conditions, but latterly its use has declined. In Russia, indeed, it is said to be banned. William Sargant,[1] in *The Lancet* of 9 June 1962, attributes this recent decline to claims, which he holds to be premature, that tranquillizing drugs have made leucotomy unnecessary, and to the deleterious effects on the general personality of the patient which sometimes follow the 'full' operation. Nevertheless, the clinical results of the operation continue to be impressive. In England and Wales, of 10,000 patients treated by leucotomy in recent years, 47% could be discharged from the mental hospitals and many of the remainder gained relief. The relapse rate was found to be less than had been expected, and severe side-effects were reported in only 3·1%.

Sargant especially urges the use of 'modified' leucotomy in carefully selected cases. He finds that if the operation is confined to a thorough section of the lower medial quadrants of the frontal lobes only, avoiding misplaced cuts and large brain haemorrhages, most of the benefits of full leucotomy can be obtained, while undesirable personality changes are obviated. The modified techniques are especially useful when used in conjunction with tranquillizing and antidepressant drugs. Sargant admits that, if more specific drugs are discovered for the relief of schizophrenia and neuroses with strong obsessive components, the need for leucotomy should diminish, but he holds that the operation still has an important place in treatment.

The essential indication for leucotomy, whether in schizophrenic, depressive, neurotic, or even psychosomatic illness, is a strong obsessive element. Another important deciding factor is the patient's previous personality. Even though in his long illness he has become deteriorated, hysterical or obsessively preoccupied, leucotomy may have excellent results if he previously had a good, conscientious, driving, obsessive and overanxious personality. But a patient who has broken down early in life and has never shown these characteristics, will rarely respond to the operation satisfactorily. Young persons often react badly, and patients tend to do much better towards middle or even old age.

Sargant discusses his experience of leucotomy at St. Thomas' and Belmont Hospitals. The operation has usually been reserved for chronic neuroses or depressive states, and with proper selection the chances of a good result in these are now 80% or more. The results are particularly good in severe and persistent anxiety hysteria. However, the operation is never performed unless all other treatment has failed, nor on the chronic constitutional hysterical patient lacking a previous good personality. It may take 6 months or a year after the operation for the abnormal behaviour pattern to disperse. This is also so in certain psychosomatic disorders with obsessive components — the asthma, neurodermatitis, psoriasis, etc. may continue, but the attacks may become progressively shorter and less severe, because they are no longer sustained by tension.

The modified operations have been less successful in severe obsessional and compulsive neuroses, especially those marked by the repetition of obsessional acts. However, where the obsessionality shows itself only by a tense, obsessive, ruminative or phobic condition, modified operations are sometimes helpful or even dramatic in their effects. Unfortunately, in many obsessional patients the symptoms started at puberty or even earlier.

In depressive illness — and this is present in the majority of patients referred to St. Thomas' for possible leucotomy — it is usually found possible to avoid operation if other treatment is applied with patience and persistence, particularly a combination of antidepressant drugs and electroconvulsion. Exogenous depressions yield to leucotomy with more certainty than endogenous depressions. In some cases the patient feels so much better after operation that he can set about remedying his unsatisfactory environment, thus breaking a vicious circle of increasing incapacity.

On the controversial question of leucotomy in chronic schizophrenia, Sargant holds that in many hospitals the operation is not being adequately used for this condition. He finds no convincing evidence that the tranquillizers get many of the really chronic and long-standing schizophrenics out of hospital, or have abolished their need for leucotomy. Too often, he feels, the drugs are used to make them into easier nursing problems. Even when such patients are helped by the drugs, and could leave hospital if they would continue to take them regularly after discharge, they may refuse to do so because they have no insight into the nature of their illness. One of the benefits of leucotomy is that it makes it easier to persuade the patient to take the drugs. With a full and thorough section of the lower medial quadrants, done a little farther back than in the neuroses, and with the patient then put back on tranquillizing drugs, some are able to return home though this had been impossible under any other forms of treatment without the operation. Modified leucotomy ought to be seriously considered if the only alternative is permanently 'tranquillized' life in the chronic wards.

The chronic schizophrenic patients who generally do not do well with leucotomy are those who, before the illness began, had poor personalities, schizoid trends, and lack of drive; and those with severe 'splitting' of affect. But excellent results have been reported from America in 'pseudoneurotic' schizophrenics, where the personality is well preserved and obsessive tension and anxiety keeps the illness going. Other conditions helped by the modified operation are the katatonic stupors and excitements, and the chronic paranoid and paraphrenic states, especially where paranoid delusions are held with obsessive persistence and the basic personality remains intact.

1. Sargant, W. (1962): Lancet, 1, 1197.

LEUKOTOMIE-OPERASIES

Soos dit met sommige ander van die fisiese metodes van behandeling in die psigiatrie ook die geval was, het daar gedurende die laaste aantal jare 'n groot verandering ingetree wat betref die toepassing van die leukotomie-operasie. 'n Dekade of meer gelede was hierdie operasie nog taamlik ‚populêr' en is dit gevoel dat dit groot moontlikhede inhou vir die behandeling van baie weerstandige obsessionele toestande en sekere vorms van geestesversteuring. Sedertdien het die operasie egter, betreklik gesproke, in onbruik geraak, en dit is dus goed om nou 'n heroorweging van die waarde daarvan te probeer maak.

William Sargant,[1] wat as 'n deskundige op hierdie gebied beskou moet word, het onlangs 'n insiggewende artikel oor leukotomie in *The Lancet* gepubliseer. Hy voel dat ten spyte van die toenemende gebruik van bedaarmiddels van alle soorte, die resultate van hierdie operasie tog nog opvallend is. In Engeland en Wallis, waar oor die 10,000 pasiënte gedurende die afgelope aantal jare hierdie operasie ondergaan het, kon 47% uit die hospitale vir geestesiekes ontslaan word, en verreweg die meeste van hulle het daarna bevredigend gevaar in die gemeenskap.

Sargant wys egter daarop dat die een of ander van die gewysigde metodes waarop die operasie vandag uitgevoer word, minder nadelige persoonlikheids-veranderinge meebring.

Daar bestaan geen twyfel nie dat die leukotomie-operasie 'n heilsame uitwerking het op gevalle by wie ontwrigtende vorms van obsessionele gedrag voorkom — of dit nou ook al in die vorm van 'n ernstige obsessionele neurose is, wat al die pasiënt se geestesfunksies oorskadu, en of dit weerstandige obsessionele elemente is wat as gedeeltelike beeld gesien word in ander toestande soos skisofreniese reaksies, sekere vorms van bedruktheidstoestande, en selfs psigosomatiese toestande wat nie op ander metodes van behandeling reageer nie.

By die oorweging van die toepassing van leukotomie-operasies moet die volgende gedagtes en maatstawwe egter baie duidelik in die gedagte gehou word: In die eerste plaas skyn waarnemers ooreen te stem dat hierdie operasie slegs 'n plek het in gevalle waar obsessionele en angselemente, wat nie onder beheer gebring kan word nie en wat dreig om die pasiënt se lewe te verwoes, 'n belangrike element van die siektebeeld vorm.

Die tweede belangrike oorweging is alreeds geïmpliseer in wat ons hierbo gesê het, naamlik dat alle ander metodes van behandeling eers uitgetoets moet word voordat 'n leukotomie aangeraai word. Dit is so omdat die resultate van dié operasie nie in volstrekte terme voorsien en voorspel kan word nie, en omdat hulle onomkeerbaar is. Die geneeshere wat die operasie aanraai moet dus tevrede wees dat daar 'n redelike verwagting is dat 'n pasiënt wat anders in elk geval *nie* sou herstel nie, gehelp kan word.

Die derde belangrike oorweging is dat die resultate van die operasie (in terme van die siektebeeld van die pasiënt, sowel as in terme van sy maatskaplike heraanpassing) beter is in ouer persone as in meer jeugdige persone. Daar moet dus baie *versigtig* oorweeg word in gevalle van mense wat nog 'n groot deel van die lewensverantwoordelikheid teenoor hul gesinne en werkgewers op hul skouers het.

Die voorgenoemde oorweging sluit eintlik ook aan by die volgende wat ons wil noem, naamlik, dat dit baie belangrik is dat daar in die gesin van 'n pasiënt vir wie leukotomie oorweeg word, 'n verantwoordelike persoon moet wees wat die hantering van die pasiënt gedurende die eerste aantal na-operatiewe maande, en selfs jare, kan onderneem. Heropvoeding en volgehoue toesigsnasorg is onontbeerlike voorwaardes by die toepassing van dié soort operasie.

In terme van die gegewens wat tot ons beskikking is, sou ons dus kon sê dat die leukotomie-operasie selfs vandag nog 'n plek het in die behandeling van sekere, duidelik-omskrewe toestande van geestesabnormaliteit en totaal-ontwrigtende wanaanpassings, wat op geen ander metodes van behandeling reageer nie en wat dreig om die pasiënt se persoonlikheids-integriteit heeltemal te vernietig. Hierdie stelling geld egter slegs as die vier algemene groepe van oorwegings waarna ons verwys het, nagekom kan word. Soos dit die geval is met alle ander radikale metodes van behandeling, is die sleutelwoorde hier ook diskresie en gesonde oordeel.

1. Sargant, W. (1962): Lancet, **1**, 1197.