GENERAL SUMMARY AND CONCLUSIONS

The aim of the present investigation was to compare electroconvulsive therapy (ECT) and flurothyl (Indoklon) convulsive therapy (ICT), using minimal doses of flurothyl, in respect of seizure and post-seizure EEG-pattern, therapeutic effect in endogenous depression, anterograde and retrograde amnesia and confusion and other side-effects. Intraindividual cross-over design or comparison of random groups with double-blind technique was used.

The main results were:

1. The seizure duration, measured by EEG with practically total muscular relaxation, was in ICT on average 70\% longer than in ECT. The EEG-pattern during the seizure was characterized by more fast activity and less synchronism in ICT, and after the seizure by more disorganization and slower reorganization in ICT, facts which indicate a greater functional disturbance in the central nervous system.

2. The therapeutic efficiency in endogenous depression was fairly similar in groups of patients treated either with ECT or ICT. The result is in agreement with the view that the depression-relieving effect is due to the seizure activity, but the prolongation of seizure time in ICT does not give an increased antidepressive efficiency.

3. The anterograde effect on the memory variable retention is similar after complete series of ECT and ICT, and may be characterized as a mild and transient Korsakoff syndrome. In ICT the probable gain from the elimination of the electric current seems to be outweighed by the longer seizure activity, which may cause a relative hypoxia in the hippocampal-mammillary system with adverse influence on retention.

4. Retrograde amnesia after the first treatment in the series was lower after ICT. This is in line with the view that the electric current is partly responsible for memory disturbances after ECT.
5. Confusion, operationally defined as reorientation, was more pronounced during the first 2—3 hours after ICT, a fact which may be correlated to the prolonged seizure. Other side-effects (headache, drowsiness, nausea), rated by patients and nurses, were fairly similar.

From the point of view of antidepressive efficiency and with regard to memory disturbances and other side-effects, ECT and ICT seem to be fairly equivalent. Owing to the technical difficulties in ICT compared to the simple and reliable ECT-technique it is not reasonable to replace ECT by ICT in the treatment of endogenous depression. However, as an alternative, especially when psychological reasons argue in that direction, ICT may be used instead of ECT.

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