Stereotactic subcaudate tractotomy is a surgical procedure performed for the alleviation of intractable affective disorders. It involves the destruction of bifrontal pathways located beneath and in front of the head of the caudate nucleus. We report the first prospective study of the neuropsychological correlates of this operation in 23 patients. Tests of general intelligence, speed and attention, as well as a wide range of focal cognitive tests, including tasks which have been reported in the literature to be sensitive to frontal lobe dysfunction, were administered 1 wk before the operation, 2 wks after the operation and approximately 6 mths after the operation. The results indicated that this operation does not cause any significant, long-term adverse, cognitive deficits. In the post-operative assessment, however, patients show a significant deterioration in their performance on recognition memory tests and a large proportion of them present with a marked tendency to confabulate on recall tasks. In addition, their performance on some of the tasks which are considered to be sensitive to frontal lobe dysfunction is found to be significantly impaired. These deficits are interpreted to reflect frontal lobe dysfunction due to widespread post-operative oedema rather than damage to the subcaudate pathways. The potential for research on these transient effects of the operation for the advancement of our understanding of frontal lobe functions is discussed <sup>1)</sup>.

## 1)

Kartsounis LD, Poynton A, Bridges PK, Bartlett JR. Neuropsychological correlates of stereotactic subcaudate tractotomy. A prospective study. Brain. 1991 Dec;114 (Pt 6):2657-73. PubMed PMID: 1782537.

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