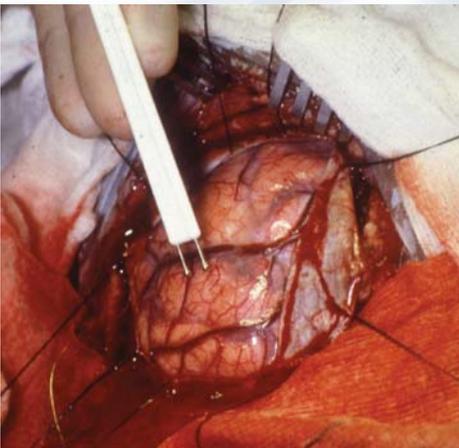


EPILEPSY SURGERY AFTER 1950 – OTHER OPERATIONS

Temporal lobectomy and lesionectomy remain the commonest operations for focal epilepsies. However, there are other procedures conducted for severe focal or generalised epilepsy. Most have not been evaluated by controlled trial and the lesson from history is that many surgical procedures have been employed only later to be discovered to be useless. Non-lesional (“MRI negative”) cortical and lobar resections remain a challenge and require usually complex intracranial EEG and other functional tests. Hemispherectomy was devised by Dandy in 1928 for the treatment of gliomas, reported in 1938 to be useful in the treatment of epilepsy by McKenzie, and popularised by Krynauw in 1951. The catastrophic late complications were then recognised in the mid 1960s and modifications of the original operation include the variant devised in 1983 by Adams, hemidecortication, functional hemispherectomy by Rasmussen and most recently hemispheric de-afferentation. The corpus callosectomy was first popularised for epilepsy in the late 1970s by Wilson who reported a 9-year old boy having 30 generalised seizures a day who became seizure free and off medication post-operatively. Unfortunately, such an outcome is rare, and the operation has now fallen largely from favour. Another operation, multiple subpial transaction was first reported in 1989 and retains a small place. Brain stimulation had been used in epilepsy since the 1920s, not least by Watkins at the London hospital. It fell out of fashion but has had a recent revival stimulated by the more accurate anatomical localisation afforded by MRI, and experimental deep brain stimulation techniques are currently under trial. Cerebellar stimulation was in vogue until a controlled trial showed it had no effect. Vagal nerve stimulation was introduced in 1988 and following licensing by the FDA in 1997, has become a popular option. Other currently experimental techniques include transcranial magnetic stimulation and radiosurgery.



A lesson from history – some of the epilepsy operations carried out in the period between 1900-1930

- Trepanation
- Trephination
- Carotid artery occlusion
- Bilateral vertebral artery occlusion
- Cervical sympathectomy
- Castration
- Circumcision
- Hysterectomy/oophorectomy
- Adrenalectomy
- Dural splitting
- Colectomy and other bowel resections
- Arterialisation of internal jugular vein