Christian Doppler Laboratory for Cardiac and Thoracic Diagnosis & Regeneration

MEDIZINISCHE UNIVERSITÄT WIEN

António Egas Moniz

(1874-1955)

Nobel prize of Phisiology or Medicine

1949

Eliana Carolina Gonçalves Alves,1277241

Biography

- Born in Estarreja Portugal in 1874
- Studied Medicine in University of Coimbra and it was trained in Neurology in Bordeux and Paris
- Became a Professor of Neurology in Coimbra in 1902
- Started in political career in 1903
- Moved to the University of Lisbon in 1911
- In 1920 he dedicated only to medicine and writting.
- Nominated for the Nobel Prize in 1928, 1930, 1937, 1944

http://en.wikipedia.org/wiki/Ant%C3%B3nio_Egas_Moniz
http://www.nobelprize.org/nobel_prizes/medicine/laureates/1949/moniz-bio.html

Cerebral angiography

- Developed in 1927 by António Egas Moniz
- Form of angiography that provides images from the blood vessels in and around the brain, by injecting a dye into the blood vessels of the patient
- Egas Moniz also developed the thorotrast to use in the procedure

Leucotomy-social context

- In the early 1920's there was an increase in patients residing in mental hospitals
- Psychiatric therapies were getting more and more invasive, without long term results
- Before the 1930's several doctors experimented with novel surgical operations
- Despite the present thought, during the period that this therapy was most used, doctors, patients and their families thought of it a viable alternative.

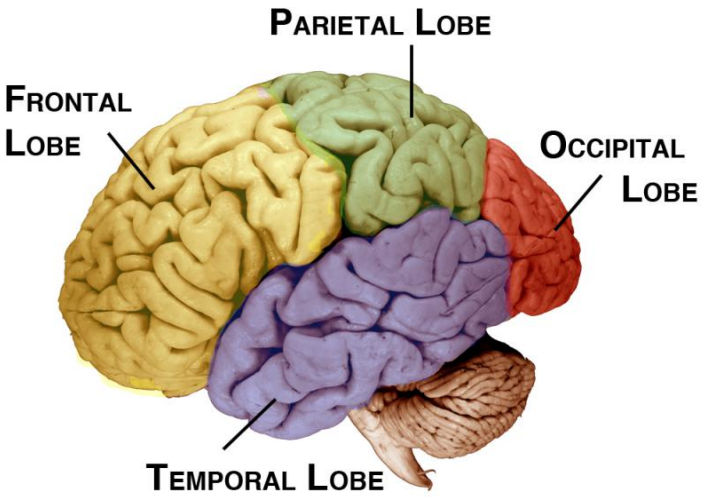
http://en.wikipedia.org/wiki/Lobotomy
http://www.nobelprize.org/nobel_prizes/medicine/laureates/1949/moniz-article.html

Leucotomy- Development

- The inspiration came from John Fulton' presentation on the second International Congress of Neurology held in London in 1935
- After frontal lobectomies two chimpanzees, Beck and Lucy presented drastic changes in behavior
- During the discussion period of the talk, Moniz asked the authors if the procedure could be extended to humans suffering from mental illness.
- Three months after attending the talk, Moniz started his experiments with Leucotomy

http://en.wikipedia.org/wiki/Lobotomy

Leucotomy- Development

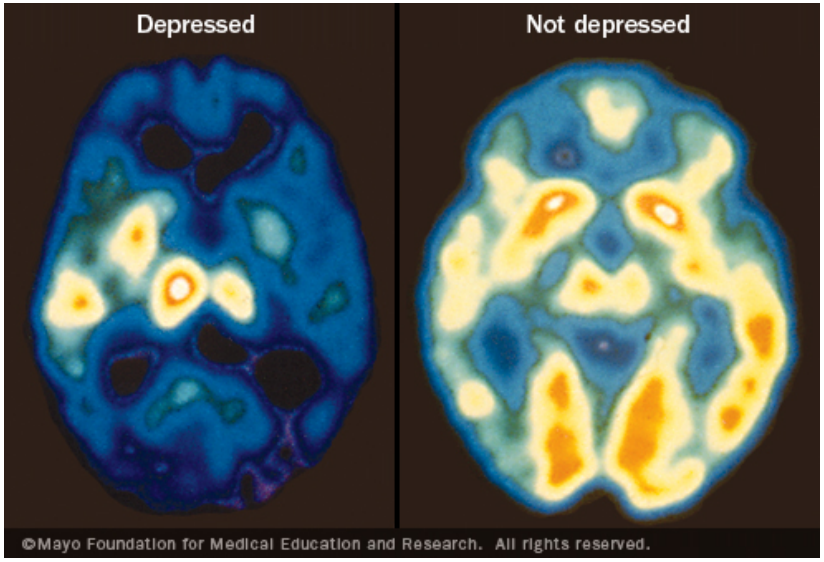


- During the 1935 Congress several papers were presented underlining the importance of the frontal lobe in personality of subjects. In one of those panels Henri Claude said: “altering the frontal lobe profoundly alters the personality of the subjects”

http://en.wikipedia.org/wiki/Lobotomy

Leucotomy- Theoretical Basis

- Moniz thought that the brain of the mentally had neural pathways caught in fixed and destructive circuits leading to "predominant obsessive ideas"



- "To cure this patients it is necessary to destroy the more or less fixed arrangements of cellular connections that exist in the brain, and those relates to the frontal lobe"

http://en.wikipedia.org/wiki/Lobotomy

Leucotomy- First surgeries

- The first eight patients were trephined in the side of the skull and ethanol was injected in the “subcortical white matter of the prefrontal area”
- In the nineth patient they performed a surgery using a leucotome, which made a 1 centimeter diameter circular lesion in the white matter of the frontal lobe. Six lesions were cut into each lobe to obtain satisfatory results.
- In the first series twenty patients had the procedure dont, and 18 patients ina second series. Moniz considered the results from the treatment a success, although he admitted that patients with detiorated conditions did benifitted from the procedure.
- Moniz publish his first results in 1936, which had much better acceptance than earlier trials.

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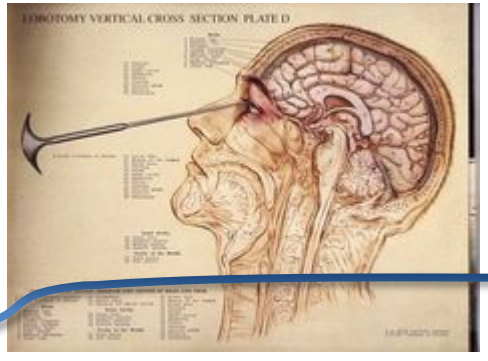
Leucotomy- Evolution

- Leucotomy was introduced in Italy in 1937 by Moniz. It was often used by the Italian physicians, so much that Amarro Fiamberti devised the first trans-orbital procedure in the same year.
- Inspired by the work of Fiamberti, John Freeman and James Watts developed the trans-orbital lobotomoy, which was used for the first time in 1946.
- Before this Freeman and Watts had improved the leucotomy method, using more precise surgical skills and more efficient in removing white matter , which they named “Freeman-Watts standard lobotomy”.



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Lobotomy- Was it a cure?

England and Wales
1942-54

Documented cases	10,365 patients
n° of patients that had a second operation	762 patients
Recover and greatly improved	42 %
No change	25%
Got worse	2%
Died	4%

- In the USA, approximately 10000 patients underwent lobotomy in August 1949.
- In the 1930's lobotomy was greatly accepted as treatment for schizophrenic diseases, due to lack of other therapy with the same outcome.

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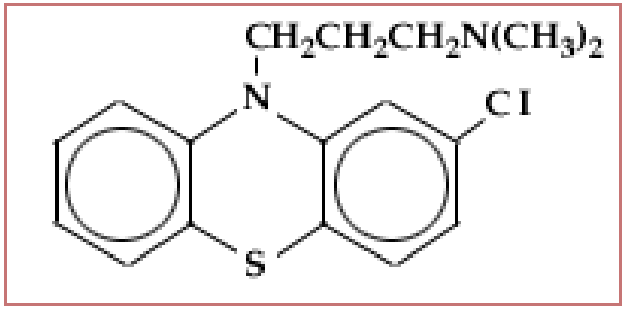
Lobotomy- Alternative treatments

- In 1952 it development of chlorpromazine in 1952 made the use of lobotomy as a treatment for schizophrenic patients unstimulating.
- The number of lobotomies made after the 1960's reduced drastically.
- Other psychiatric diseases followed with different course of treatments, more beneficial for the patient.



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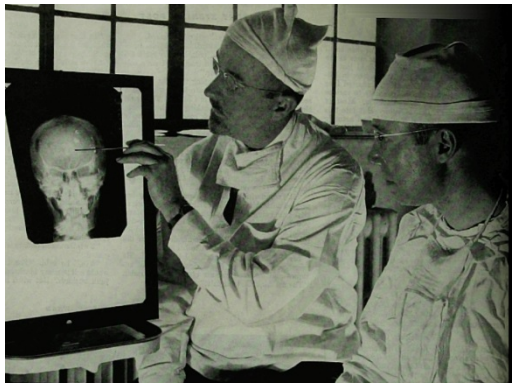
Lobotomy- Controversy

- Snorre Wohlfahrt (1947) – "…still to imperfect to enable us, with it's aid, to venture on a general offensive against chronic cases of mental disorder"- Swedish psychiatrist
- After hard critics from one very important soviet psychiatrist, Vasily Gilyarovsky, the Soviet Union banned the procedure in 1950 calling it "contratry to the principles of humanity" and that " through lobotomy an insane person is changed to an idiot"
- Critics of the lobotomy procedure grew after some very famous cases became public



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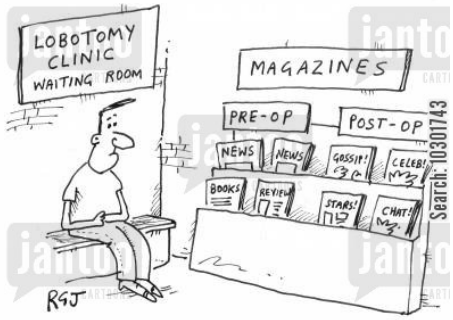
Lobotomy- In Numbers

- In the USA approximately 40000 people we lobotomized
- 17000 lobotomies were preformed in the United Kingdom
- Scandinavian hospitals lobotomized 2.5 times more people per capita than the United States.
- Between 1944 and 1966 4500 ppeople were lobotomized in Sweden, they were mainly women.
- Denmark has a total of 4500 known lobotomies performed, mainly from women and retarded children.



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