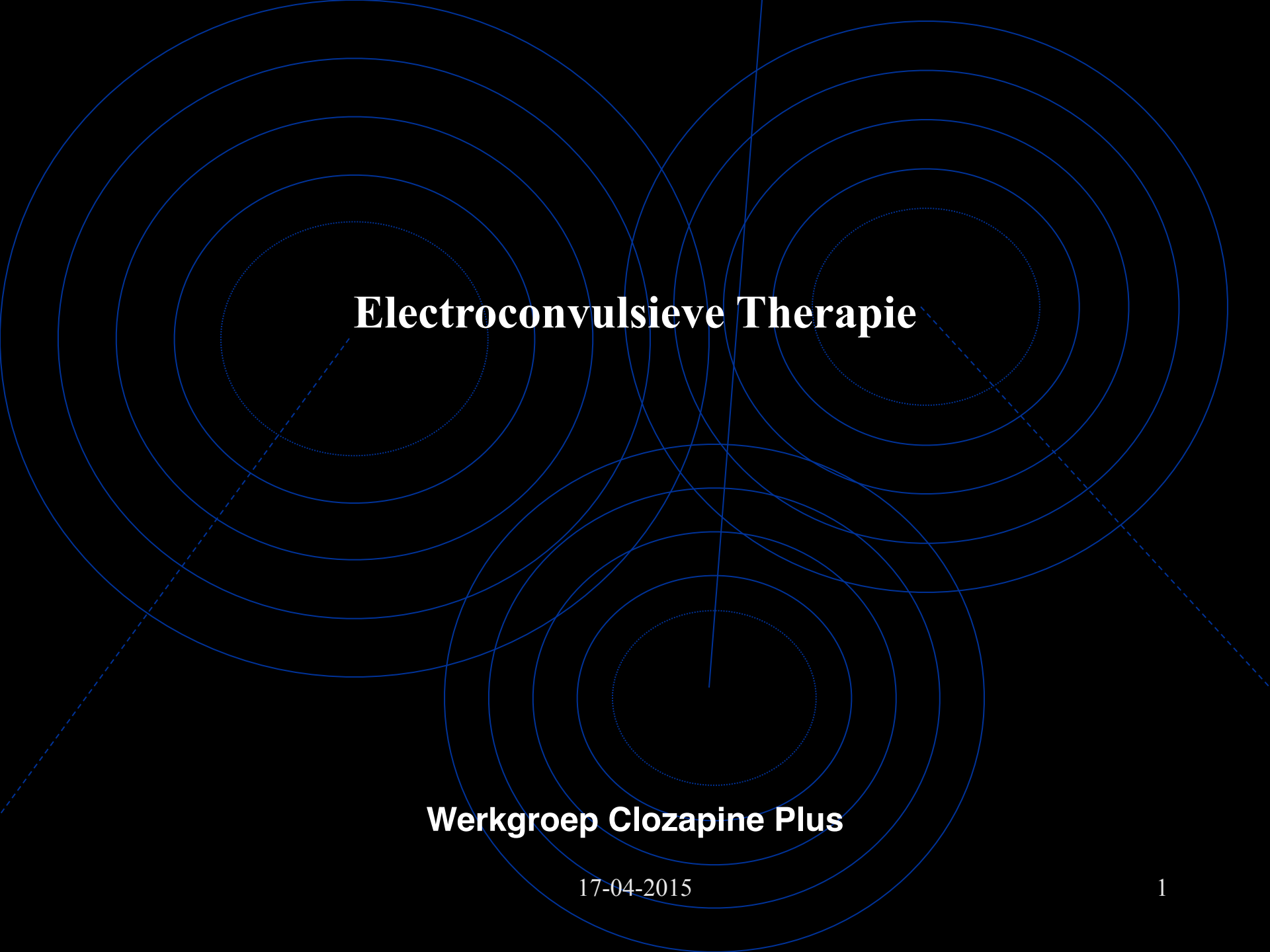


The background features three sets of concentric circles in a light blue color. These circles are arranged in a triangular pattern, with one set at the top left, one at the top right, and one at the bottom center. Several thin, solid blue lines intersect these circles, creating a complex geometric pattern. Additionally, there are dashed blue lines extending from the centers of the circles towards the edges of the frame.

Electroconvulsieve Therapie

Werkgroep Clozapine Plus

17-04-2015

Disclosures

- Uitnodigingen voor congressen, symposia en houden van lezingen voor en door:
- Astra-Zeneca
- Bristol-Myers-Squibb
- Janssen-Cilag
- Lundbeck
- Takeda

Inhoud

- **2 Casus**
- **Geschiedenis ECT**
- **Uitvoering ECT**
- **Relevantie**

Casus 1

- **Man, 32 jaar**
- **2000 katatonie**
- **ECT → herstel**
- **2003 recidief**
- **2004 ECT → herstel**
- **> 1 jaar stabiel, werkt 5d/week!**

Casus 2

- **Man, 23 jaar**
- **6 jaar therapieresistent**
- **Incoherent → gesloten woonafd.**
- **ECT met onderbrekingen → herstel**
- **RIBW, sax in band, geen ECT meer**

Geschiedenis

- 47 Scribonius Largus sidderalen tegen hoofdpijn keizer Claudius
- Ca. 1520 Paracelsus camfer
- 1774 Franklin e.a. electriciteit
- 1776 von Auenbrugger: camfer
- 1785 Oliver: camfer
- 1798 Weickhardt: camfer
- 1851 Szekeres: camfer
- 1876 Rosenblum te Odessa
- 1919 Wagner-von Jauregg te Wenen
- 1935 Moniz te Lissabon
- 1927 Sakel te Berlijn
- 1934 Meduna te Budapest
- 1938 Cerletti en Bini: ECT

Geschiedenis

- Benjamin Franklin (1706-1790)
- 1774 Leidse fles

Navolging:

- 1792 John Birch (1745?–1815) in Engeland
- 1803 Giovanni Aldini (1762–1834) in Italië



Geschiedenis

- Joseph Leopold von Auenbrugger (1722-1809)

grondlegger van diagnostiek door percuteren

- 1776 camfer bij maniën

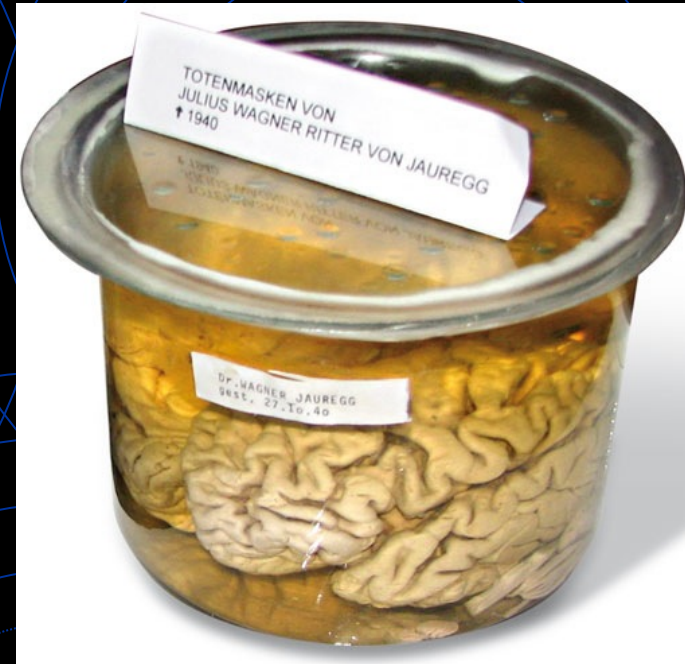
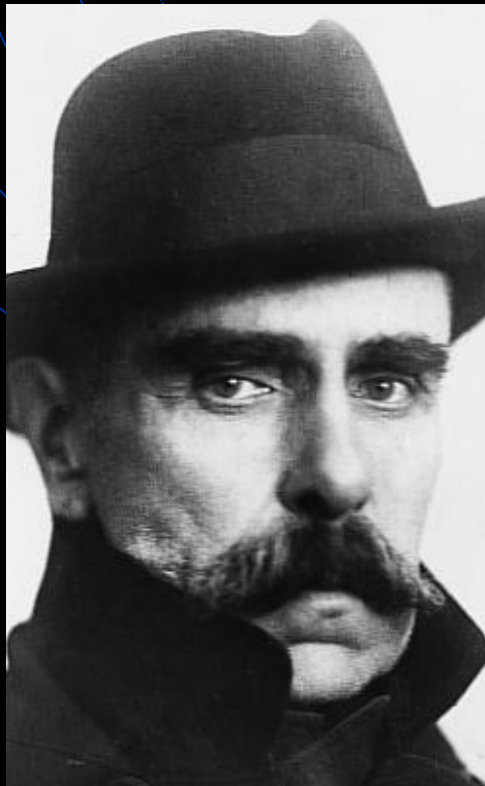
Geschiedenis

(Odessa 1876)

Alexander Samoilovitch Rosenblum
(1826-1902) Koorts door tuberkelbacillen

Geschiedenis

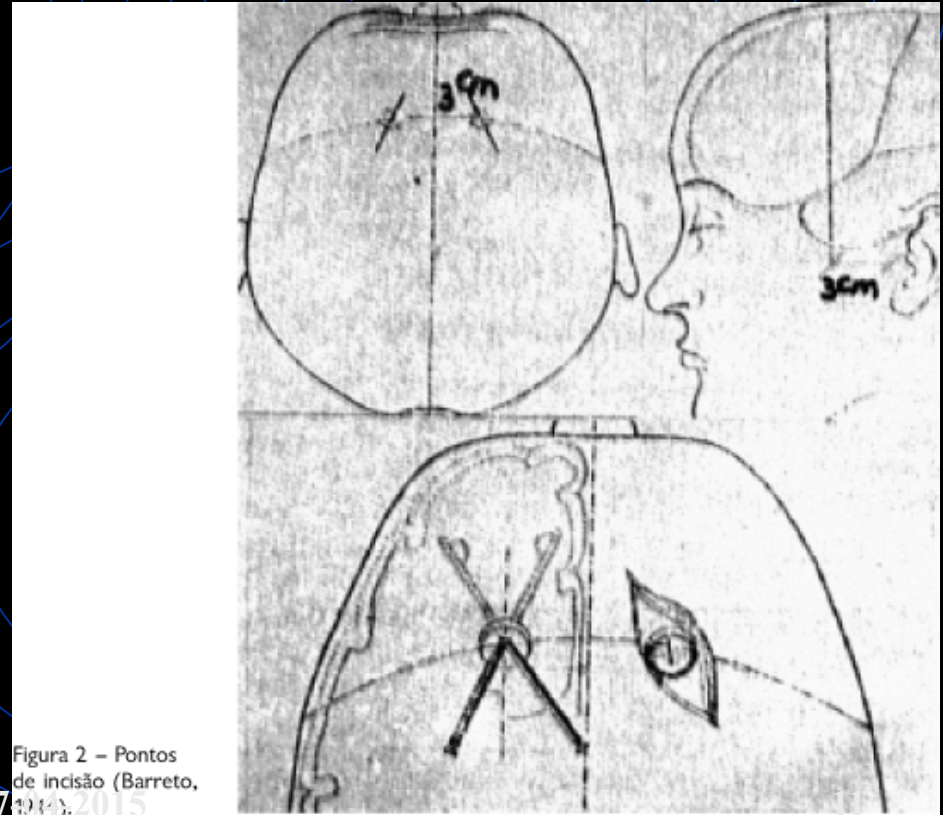
- Julius Wagner- von Jauregg (1857-1940)
- Nobelprijs 1927



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Geschiedenis

- Egas Moniz (1874-1955)
- Nobelprijs 1949



Geschiedenis

- M.J.Sakel (1900-1957)
insuline 1927



Geschiedenis

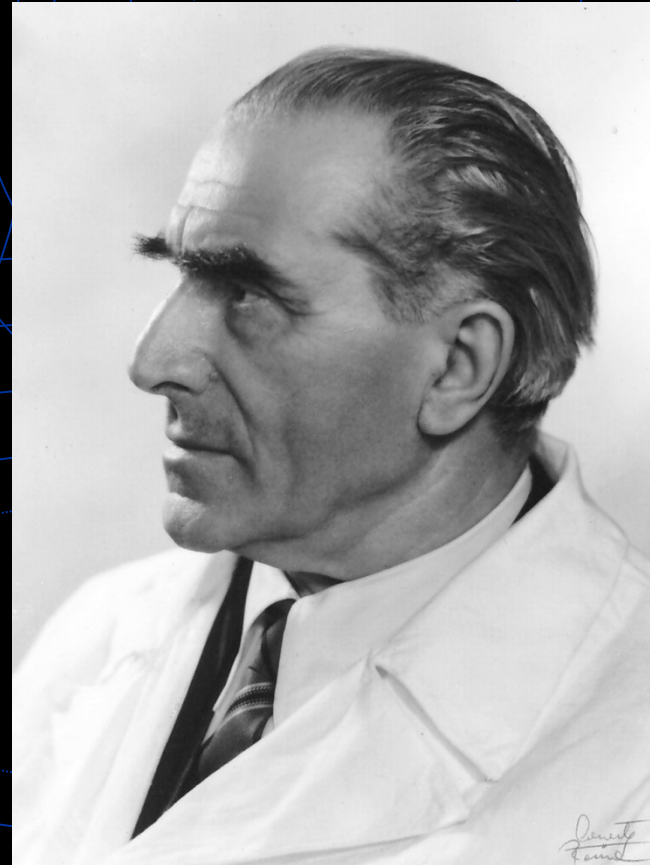
- Ladislas Joseph von Meduna (1896-1964)
- 1932 groei gliacellen
- 1934 camfer, cardiazol



Geschiedenis

Ugo Cerletti (1877-1963)

Lucio Bini (1908-1964)



Geschiedenis 2

- 1939 Lothar B. Kalinowsky
- 1939 Abram E. Bennett → curare
- 1947 Daniel Bovet (1907-1992)
succinylcholine
- 1958 N.P. Lancaster unilaterale ECT
- 1962 boek, 1975 film Cuckoo's nest

Uitvoering

Indicatiestelling: onvoldoende reactie op medicatie bij:

- Katatonie
- Depressie
- Schizofrenie

Contra-indicaties

- Absoluut: geen
- Relatief: hartinfarct, coronairlijden, hypertensie, decompensatio cordis, aneurysmata, klepvitiae, thrombose, stollingsstoornissen, faeochromocytoom, CARA, longemfyseem, netvliesloslating, glaucoom, verhoogde intracraniële druk, CVA
- Zwangerschap: 1e trimester: gegevens?
2e en 3e: veilig

Uitvoering 2

- Informed consent
- Lich. Anamnese+Ond.
- Lab, tandarts
- Medicatie
- Voorstellen anesthesioloog

Uitvoering 3

- **Aanwezig: psychiater, anesthesioloog, ECT-verpleegkundige, begeleider**
- **Venflon, saturatiemeter, EEG, ECG, bloeddruk, stuwband tegen spierverslapping, elektrodenplaatsing**

ECT afdeling Mangostraat



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- Omkleden
 - Losse kleding, voorsluiting
 - Kunstgebit
 - Gehoorapparaat
 - Nagellak
 - Sieraden
- Uitplassen
- Bescherming urineverlies



ECT afdeling Mangostraat

- behandelkamer



Uitvoering 3



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Uitvoering 4

- **Narcosemiddel: etomidat of propofol**
- **Spierverslapper: succinylcholine**
- **Beademen met ballon**
- **Bijtblok**

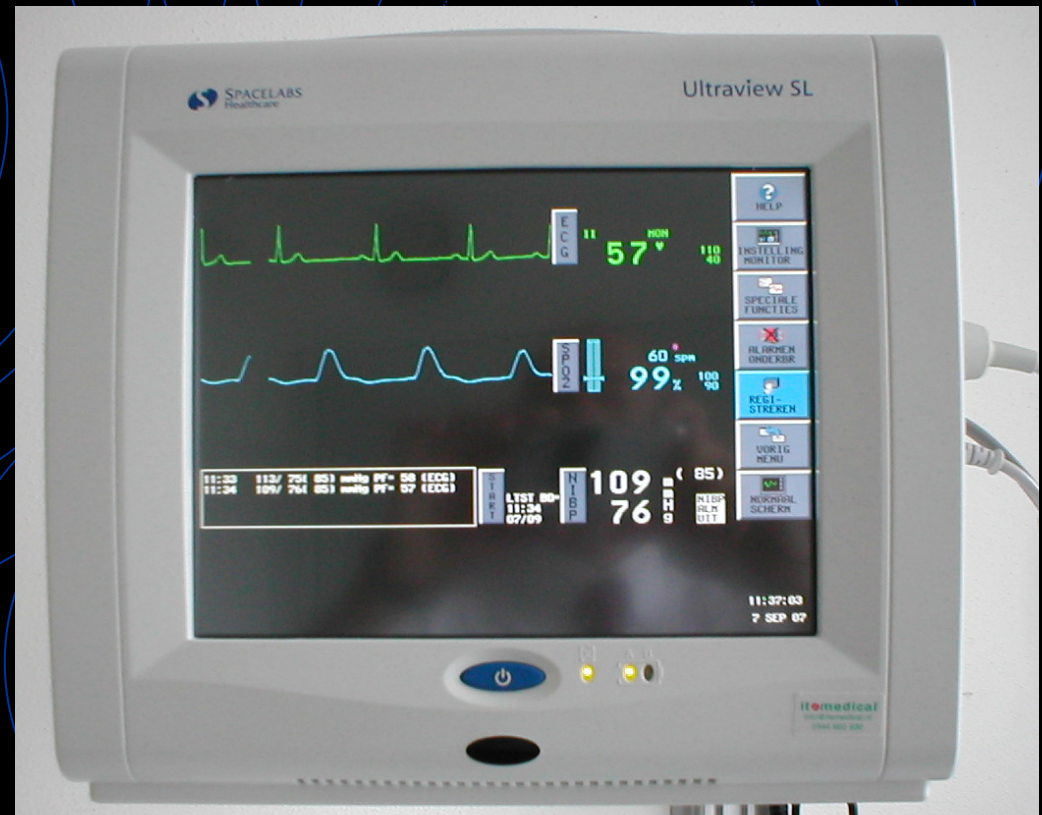
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- Controle hartritme
'ECG plakkers'



ECT afdeling Mangostraat

- Hartslag
- Zuurstofsaturatie
- Bloeddruk



ECT afdeling Mangostraat

- EEG



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- Bloeddruk controle

ECT afdeling Mangostraat



- Continuumeting
Zuurstofsaturatie

Pulse oximeter



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- ECT apparatuur



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- 100 % zuurstof

Uitvoering 5



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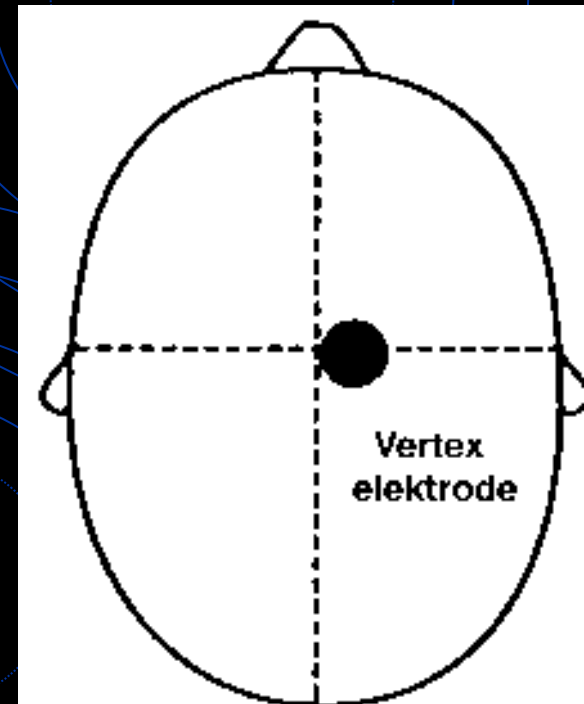
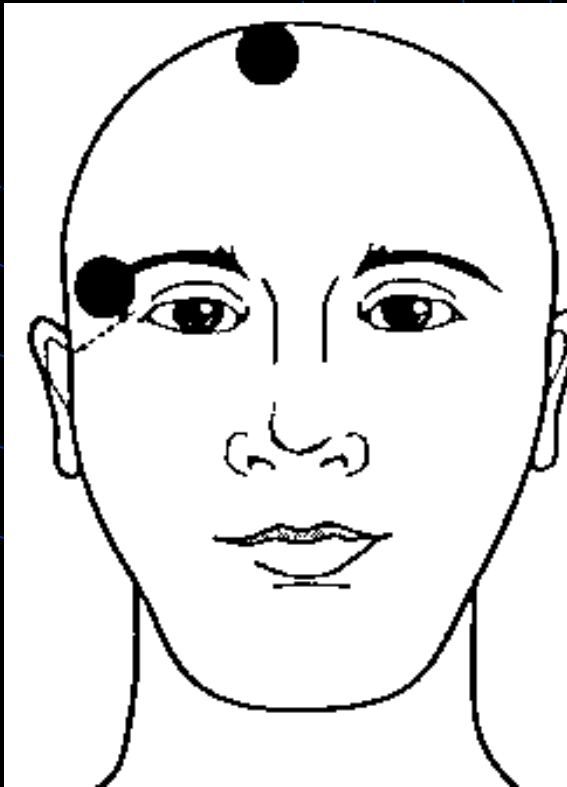
ECT afdeling Mangostraat

- Stimulus elektroden

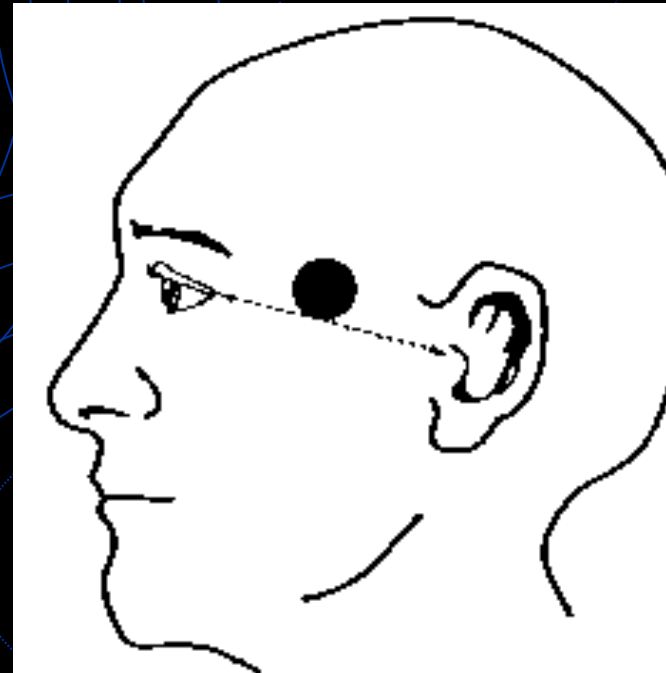
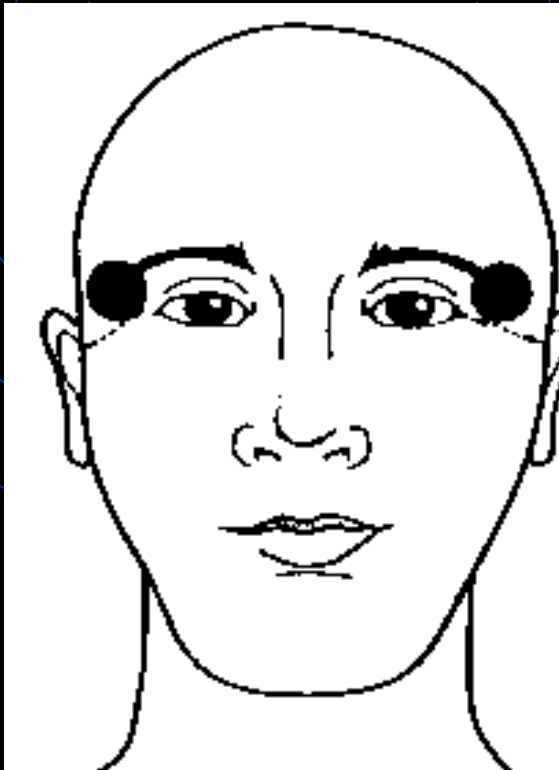


ECT-elektroden positie RUL

Rechts Uni-Lateraal



ECT-elektroden positie BL Bi-Lateraal



ECT afdeling Mangostraat

- gebitsbescherming



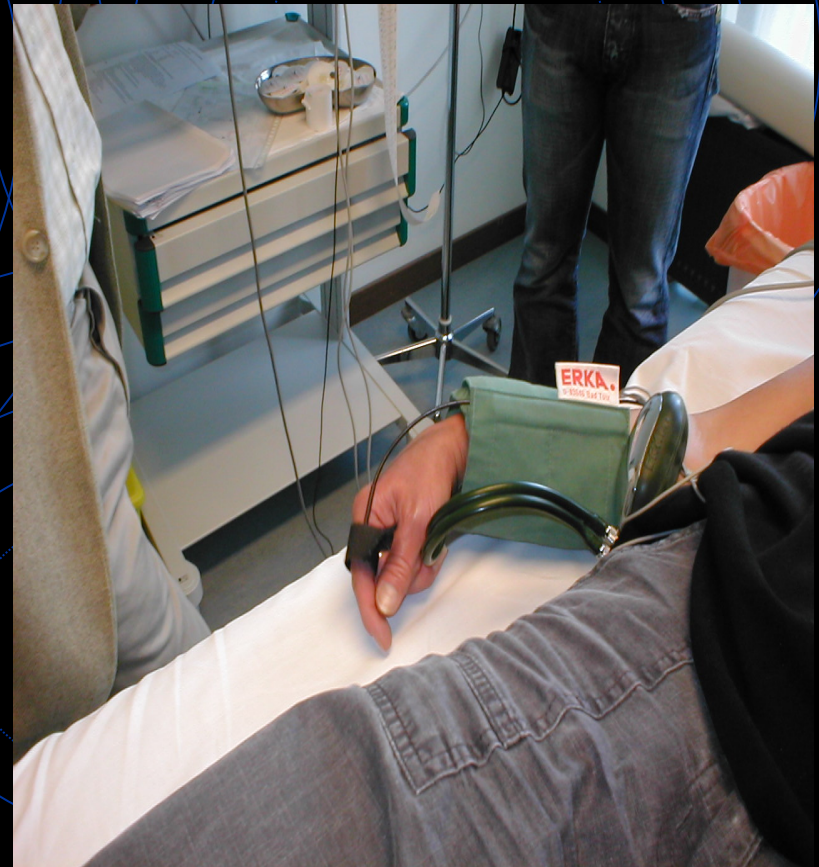
ECT afdeling Mangostraat

Zeer weinig elektrische energie!

doorgaans in de orde van grootte dat
een fietslampje er een kwart tot halve
seconde op kan branden!

ECT afdeling Mangostraat

- De epileptische aanval blijft zichtbaar in de spieren van de hand door opgepompte bloeddrukband



ECT afdeling Mangostraat

- Beademen blijft nodig tot de patiënt zelf weer goed ademt



ECT afdeling Mangostraat

- verkoever



Uitvoering 6

- **Rechts unilateraal, BP, titreren**
- **Insult tussen 20 en 180 sec.**
- **Spontaan ademen → verkoever**
- **Helder → vertrek**

Uitvoering 7

- **Frequentie 2x per week**
- **Duur ca. 20 sessies**
- **Meest afbouwen**
- **Soms onderhoud, vaak in lagere frequentie**

Bijwerkingen

- **Hoofdpijn**
- **Misselijkheid**
- **Soms verwardheid, zelden langer dan enkele uren**
- **Stoornissen korte, soms lange termijn geheugen**

Dilemma

- Effectief, maar hoe te stoppen??
- Dhr. El H.
- Mw ten H.
- Mw 't H.
- Dhr. D.
- Dhr. H.

Dwangbehandeling

- Wet BOPZ:
- IBS: 3 weken
- Artikel 2: 6 maanden
- Artikel 14: 6 maanden
- Artikel 16: 12 maanden

Dwangbehandeling

- Intern vs. extern gevaar
- Wilsbekwaamheid
- (wettelijk) vertegenwoordiger
- Behandelplan
- Geneesheer-Directeur
- Klachtencommissie
- Rechtbank

Bij Schizofrenie

- Why do we prescribe ECT to schizophrenia patients?
- We studied records of schizophrenia inpatients receiving ECT in one year (2005) ($n=101$) retrospectively, as well as the consecutive data of patients between May 2007 and June 2008 ($n=101$) prospectively. The various indications for ECT in schizophrenia were studied by frequency analysis. Of the 202 schizophrenia patients who received ECT, the most common reason was to augment pharmacotherapy ($n=116$). The target symptoms for which ECT was prescribed the most was catatonia ($n=72$). The mean number of ECTs (SD) received was 8.4 (2.8).
- Phutane VH, Thirthalli J, Kesavan M, Kumar NC, Gangadhar B N. Why do we prescribe ECT to schizophrenia patients?. Indian J Psychiatry 2011;53:149-151

Bij Schizofrenie

- A Survey of the Practice of Electroconvulsive Therapy in Asia
Worrawat Chanpattana, MD, Barry Alan Kramer, MD, Girish Kunigiri, MD, B.N. Gangadhar, MD, Rungrueng Kitphati, MD, and Chittaranjan Andrade, MD
- The practice of ECT in Asia may seem suboptimal: schizophrenia, not depression, is the most common indication; most institutions offer sine-wave ECT; unmodified ECT is commonly administered; bilateral electrode placement is invariable in most institutions; electroencephalographic monitoring is uncommon; continuation ECT is infrequent; and no formal training in ECT is available. We speculate that the suboptimal practices reflect felt needs and ground realities in standards of medical care in developing countries rather than a misuse of ECT.
- (J ECT 2010;26: 5Y10)

Bij Schizofrenie

- Electroconvulsive Therapy in China
- Clinical Practice and Research on Efficacy
- Yi-lang Tang, MD, PhD, Wei Jiang, MD, Yan-ping Ren, MD, PhD, Xin Ma, MD, Robert O. Cotes, MD, and William M. McDonald, MD
- More than 900 journal papers on ECT have been published in the Chinese language between 1979 and 2012. Currently, modified ECT has replaced unmodified ECT, and treatments were performed both in inpatient and outpatient settings. Electroconvulsive therapy is primarily used for the treatment of schizophrenia and mood disorders and has been shown to be very effective in both. The primary use of ECT in China is in the treatment of schizophrenia. The Chinese literature provides a rich database on the efficacy of modified and unmodified ECT, with and without adjunctive antipsychotics, in the treatment of schizophrenia.
- (J ECT 2012;28: 206Y212)

Bij Schizofrenie

- Antipsychotic Polypharmacy in a Treatment-Refractory Schizophrenia Population Receiving Adjunctive Treatment With Electroconvulsive Therapy
- Diana Kristensen, MD, Ida Hageman, MD, Jeanett Bauer, MD, Martin Balslev Jørgensen, MD, and Christoph U. Correll, MD
- Only 22.6% of this treatment-refractory population received clozapine, yet 72.4% received APP. Following the results from our study as well as the general level of evidence, patients with refractory schizophrenia-spectrum disorder should receive clozapine or ECT before being tried on APP.
- (J ECT 2013;29: 271Y276)

Bij Schizofrenie

- Successful Use of Maintenance Electroconvulsive Therapy in the Treatment of Clozapine-Associated Obsessive-Compulsive Symptoms in Schizophrenia, A Case Report
- Naren P. Rao, MBBS, MD, Abish Antony, MBBS, MD, Dhanya Raveendranathan, MBBS, MD, Ganesan Venkatasubramanian, MBBS, MD, Rishikesh V. Behere, MBBS, MD, Shivarama S. Varambally, MBBS, MD, and Bangalore N. Gangadhar, MBBS, MD
- De novo obsessive-compulsive (OC) symptoms are associated with the use of atypical antipsychotics, clozapine in particular. Treatment of clozapine-associated OC symptoms is challenging and often difficult because continuation of clozapine can result in worsening of OC symptoms, whereas discontinuation may result in worsening of psychosis. We report, for the first time, the use of maintenance electroconvulsive therapy, in clozapine-associated OC symptoms, in a patient with schizophrenia.
- (J ECT 2011;27: e37Ye38)

Bij Schizofrenie

- A Review of Continuation Electroconvulsive Therapy
- Application, Safety, and Efficacy
- Kenneth Trevino, BA, Shawn M. McClintock, PhD, and Mustafa M. Husain, MD
- Despite its high efficacy, a major limitation of ECT is the significant rate at which patients relapse after treatment. Providing additional ECT treatments after completion of a short-term course of ECT, referred to as continuation ECT (C-ECT), is a strategy used to reduce the risk of relapse. The efficacy of C-ECT is also discussed, with a focus on major depressive disorder and schizophrenia. Indications for use and patient selection for C-ECT are predominately similar to those for a short-term ECT course. Although adverse cognitive effects can occur during C-ECT, the risk and severity of cognitive impairment are generally low, possibly because of the greater intertreatment intervals. Most research supports the use of C-ECT to prolong remission; however, methodologic limitations mitigate firm conclusions and generalizability of these findings. Nonetheless, the available evidence supports the use of C-ECT as a safe and effective method in relapse prevention.
- (J ECT 2010;26: 186Y195)

Bij Schizofrenie

- Electroconvulsive Therapy Augmentation in Clozapine-Resistant Schizophrenia: A Prospective, Randomized Study
- Georgios Petrides, M.D., Chitra Malur, M.D., Raphael J. Braga, M.D., Samuel H. Bailine, M.D., Nina R. Schooler, Ph.D., Anil K. Malhotra, M.D., John M. Kane, M.D., Sohag Sanghani, M.D., Terry E. Goldberg, Ph.D., Majnu John, Ph.D., Alan Mendelowitz, M.D.
- The intent-to-treat sample included 39 participants (ECT plus clozapine group, N=20; clozapine group, N=19). All 19 patients from the clozapine group received ECT in the crossover phase. Fifty percent of the ECT plus clozapine patients met the response criterion. None of the patients in the clozapine group met the criterion. In the crossover phase, response was 47%. There were no discernible differences between groups on global cognition. Two patients required the postponement of an ECT session because of mild confusion.
- Conclusions: The augmentation of clozapine with ECT is a safe and effective treatment option. Further research is required to determine the persistence of the improvement and the potential need for maintenance treatments.
- Am J Psychiatry 2015; 172:52–58.

ECT Den Haag

Overzicht aantal ECT-behandelingen vanaf 1990

Totaal 27615

1990	387
1991	198
1992	383
1993	247
1994	488
1995	467
1996	611
1997	535
1998	397
1999	575
2000	590
2001	479
2002	449
2003	917
2004	1049
2005	1328
2006	1312-
2007	1241-396
2008	1476-
2009	1847-
2010	2101-
2011	2500-697
2012	2958-846
2013	2775-846
2014	2305-985

17-04-2015