



# Bruken av ECT på tre kontinenter

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# Wenn jemand eine Reise tut

- Jeg hadde en mistanke om at Elektrosjokkbehandling gjennomføres på svært ulikt vis verden rundt, for ikke å si Norge rundt
- Jeg regnet med at selve ECT utførelsen ville være forskjellig
- Men at også måten å gi anestesi varierte, var kanskje en overraskelse (eller kunnskapsmangel?)
- En sammenligning med eget sykehus får dere også ispedd internasjonale betraktninger

# Temaer:

- Hvor gjøres ECT?
- Hvilke anestesimidler brukes?
- Hva gjøres etterpå?
- Bitekloss?
- Holde pasienten under anfallet?
- Hvem gjør hva?
- Hvem er jeg etter denne reisen, og har det noen betydning?



# Arvika sjukhus



# Arvika distriktssykehus

- ECT gjøres ved postoperativ avdeling i dedikerte rom
- Kun en anestesisykepleier og en psykiatrisk sykepleier er tilstede
- Begge har lang erfaring og den p.s. er sertifisert for å gi ECT
- Anestesilege finnes på andre rom i nærheten
- Psykiateren deltar ikke
- Recovery skjer i etasjen under på en del av psykiatrisk avdeling

# Arvika

- Alle får Atropin IM før behandlingen
- Propofol brukes til alle og succinylcholin i doser rundt 60mg
- Anestesisykepleier har multiinngang til venflonen og betjener dette enhånds
- Hun hjelper til ved plassering av stimulerings elektrodene, og det gis RUPS

# Arvika's MECTA-apparat



# Arvika's oppsett





# Hvor gjøres ECT på sykehuset?

- Kjellerrom uten dagslys
- Sokkeletasje
- Egen ECT-avdeling på linje med polklinikker
- På postoperativ avdeling
- På vaktrom på psykiatrisk avdeling
- På intensivavdeling
- Innerst i sykehusets mottaksavdeling

**Sier dette noe om aksept av ECT?**

# Førde sentralsykehus, urologisk operasjonsrom?



# Førde



# Paris



# Maison de la Sante Bellevue i Meudon rett utenfor Paris

- Privat eiet sykehus, 57 senger, stort sett enerom
- Egen ECT avdeling i sokkeletasje
- Monitorerer to EEG avledninger, ikke EKG
- Små venfloner ”butterfly” på mange pas
- Pentothal og succinylcholine
- Frottehåndkle som bitekloss
- Ingen bruker hansker

# Paris, anestesilageret



# Paris



# Paris, recovery rommet





# Premedikasjon?

- Mange brukte ingenting før ECT
- Morfin scopolamin
- Atropin
- Flumazenil
- Glycopyrolate

# Narkosemiddel

- Alle brukte succinylcholine
- 8 sykehus brukte pentothal,
- 1 Brietal,
- 4 propofol
- 1 etymidate
- ”Alle” brukte propofol som annenhånds anesthesi

# Hillside hospital, Great Neck Nassau County utenfor New York

- Stort generelt sykehus også
- ECT-suite, dvs. et kjellerlokale på 100 m<sup>2</sup> uten vinduer, inkluderer også recovery og venterom
- 3 faste senger til ECT med forheng imellom
- Brevital og succinylcholine
- Alle får glycopyrolat før ECT, også flumazenil om de bruker benzo
- Anestesilegene skifter, og noen gir ”alt i en sleng”

# Hillside Hospital



# Hillside Hospital, Great Neck



# Hillside Hospital



# Hillside



# Hillside





# Hillside



# Hillside



# Hillside, Mecta apparat



# Hillside, recovery room



# Hillside, inngangen til ECT-suiten i kjelleren



# Parken som sykehuset Hillside ligger i



# IQRAA Hospital, Calicut, India



# IQRAA hospital





# IQRAA hospital



# IQRAA hospital vask med skål med biteklosser



# IQRAA hospital

Mohan brief pulse ECT with fixed electrode placement for bilateral ECT



# Inngangspartiet til IQRAA-hospital



# Masina private hospital, Mumbai



# Masina



# Masina hospitals psykiatriske ambulanse



# Hvordan legger man pasienten etter avsluttet ECT?

- Pasienten snus over i NATO-leie
- Pasienten rulles helt over på magen med en arm under hodet
- Pasienten dras over på bære eller seng og blir liggende på ryggen
- Pasienten får behandling i seng på egen rom og blir liggende på rygg



# Naval hospital, Mumbai



# Naval hospital



# NMC Specialty Hospital Abu Dhabi

Sykehuset holder til i denne moderne bygningen og gir spesialisert behandling innen mange spesialiteter.

Psykiatrisk del er liten, kun to ansatte psykiatere. Det gis i begrenset omfang tilbud om ECT.

Behandlingsstedet var under flytting, derfor fikk jeg ikke se noe rom.

Det gis bitemporal ECT med standard anestesi, Hamilton depresjonsskala brukes før og etter.

Indikasjon vurderes av to psykiatere, Informert, skriftlig samtykke.

ECT gis for depresjon, bipolare lidelser og refraktær schizofreni



# Semmelweis universitetssykehus i Budapest



# Semmelweis



# Jahn Ferenc Deli pest sykehus i Budapest et gammelt sinusbølge-apparat



# Jahn Ferenc Deli-pest - stimulerings-elektroderne



# Jahn Ferenc anesthesiapparatet i den postoperative avdelingen





# Jahn Ferenc Deli-pest sykehus

Adm. Overlege Gabor Gazdag PhD



# Jahn Ferenc



# Jahn Ferenc sykehuset

inngangspartiet til bygningen fra 1980, allerede i forfall



# PUK, Burghölzli, Zürich



# Inngangspartiet til Psychiatri Universitätsklinik, Zürich BURGHÖLZLI



# ECT-rommet på Burghölzli



# ECT rommet i kjelleren

Overlegen er Katrin Angst, datter av prof.  
Emeritus Julius Angst



# ECT rommet i kjelleren





# Inngang til prof. Bleulers leilighet inne i sykehuset



Bleulers forelesningsal der blant annet schizofrenibegrepet ble presentert i 1909



# En samling biteklosser



# Hvordan er f.eks. Blakstad sykehus utenfor Oslo i konkurranse med verden?

- Meget stabilt personale
  - Effektiv fremdrift, 4 pasienter i timen
- Anestesilege og psykiater tilstede hver gang
- Trange lokaler
- Lite “redningsutstyr”
  - Mindre monitorering enn andre steder
- “ingen hendelser” på 10 år

# Utstyr i ECT-rommet



# Thymatron 4 ECT maskin



# Anestesilegens hemmelige gjemmer



# Oppvåkning i hallen inn til alderspsykiatrisk avdeling





## Death by suicide long after electroconvulsive therapy. Is the sense of coherence test of Antonovsky a predictor of mortality from depression?

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### Abstract

Prediction of increased risk of suicide is difficult. We had the opportunity to follow up 20 patients receiving electroconvulsive therapy (ECT) because of severe depression. They filled in the Antonovsky sense of coherence test (SOC) and Beck depression inventory (BDI) before and after a series of ECT treatments. Seventeen surviving patients had a mean observation time of 28.5 months, whereas the three deceased patients had 11.3 months. There was a lower mean age at onset of illness and a longer mean duration of disease in the deceased. Other clinical parameters did not differ. The surviving patients had a significant decrease on the BDI from 35 to 18 ( $P=0.001$ ) and an increase on the SOC test after ECT from 2.45 to 3.19 ( $P=0.001$ ), indicating both less depression and better functioning in life. The deceased had a larger change on the BDI from 32 to 13, not attaining significance because of the low number of deceased. The SOC test, however, did not increase to a purported normal level; that is, from 2.45 to 3.87. Although the SOC scale has been shown to predict mortality in substance abusers, the SOC test has not been part of earlier reviews of predictive power. Tentatively, a low pathological score on the SOC test may indicate low

later in life. Co-occurring schizophrenia and substance abuse is not rare, making the treatment of both illnesses more difficult. In general, electroconvulsive therapy (ECT) seems to reduce the risk of suicide, more so in the short term than over years after a series of ECT treatments.<sup>1</sup> Suicide attempts after six months were not as frequent among 119 depressive patients receiving ECT (3.8%) compared to patients receiving antidepressant medication (4.2%).<sup>2</sup>

Depression inventories categorize the depth of a depression, but as far as we have read in the scientific literature, no single test of depression or anxiety has a distinct ability to predict an increase in mortality, let alone suicide, except for the notion that a more severe degree of illness would indicate an increase in mortality risk. This is documented thoroughly in the now 25-year-old study of Fukunoy.<sup>3</sup> The sample for this study was 4000 patients consecutively admitted to a Veterans hospital. On a wide range of tests, including the Beck depression inventory (BDI), attempts to identify specific subjects were unsuccessful. Thus the author concluded that "identification of particular persons who will commit suicide is not currently feasible." Some of his negative conclusions were criticized by others.<sup>4</sup> Contrary to this, we did find such a relationship in a study of 120 substance abusers.<sup>5</sup> They filled in the Antonovsky sense of coherence test (SOC) and six years later their fates were sought in the Causes of Death Register of Statistics, Norway. All patients who died during this period, and only one of the surviving abusers, had a low score ( $<3.6$ ) on the SOC test. The degree of depression may hinge on a combination of social, economic, relational, and possibly genetic factors. We have taken the opportunity to investigate if this test, used more in social sciences than in medicine, could be an indicator of mortality, despite the rather conclusive recommendations of Fukunoy.<sup>3</sup>

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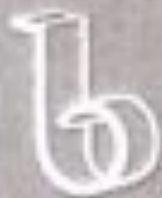
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referred to the hospital on a voluntary basis. The age of onset of uni- or bipolar depression was noted, together with the duration of illness before the index stay. The number of previous known suicide attempts, and whether they revealed suicidal ideation during the stay, was also registered. After a series of ECT treatments, described in detail elsewhere,<sup>6</sup> 20 patients were discharged from the hospital,<sup>7</sup> and they were referred to another long-term resident facility, a psychiatric polyclinic, or back to their general practitioner for further follow-up. Before and on the day after finishing a series of ECT treatments, all patients filled in two psychometric tests, the SOC test and the BDI.

### The sense of coherence scale of Antonovsky

This scale was developed to unravel the factors preventing people from developing illnesses despite enormous strain, in concentration camps for instance.<sup>8</sup> More specifically, the test



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**Sense of Coherence in Patients Treated  
for Depression with ECT**

*John E. Berg and Natalia Kononova*

Mollestad og Bergs modifisering for å minske søl  
med elektrodegel  
J ECT 2011;27;3:267-8

