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he flashbacks come late at night. First comes the recollection of intense physical pain, as if the bones in his arms are being snapped like twigs. Then he hears the voice of the neurosurgeon applying an electric current to metal pins implanted in the tissue of his brain. "How do you feel, Derek?" the surgeon Arthur E Wall asks, while peering into Derek Hutchinson's eyes to see if his pupils have yet dilated with fear.

When Hutchinson swears at the surgeon, Wall administers another electric shock to nerve centres located in the hypothalamus at the centre of his patient's brain. At this, Hutchinson's pupils dilate and he screams: "You're going to kill me, you bastard!" Hutchinson's medical records, written by Wall over 30 years ago, confirm that his patient "felt funny – as if he was dying". But as he screamed, Hutchinson recalls Wall leaning in close to his face and leering: "And I thought you were a bit of a tough guy."

His next recollection is of Wall giving orders for surgical implements to be passed. Hutchinson feels the metal pins inserted through nylon balls lodged in cavities bored into the front of his skull being replaced by thicker electrodes he says felt like "broom handles". "After that I started, I start to feel warm all over and quickly feel as if I have fallen into a vat of molten metal, as if I am, >>>

**Dr Walter Freeman performs a lobotomy in America in 1949 by driving an ice pick into the patient's eye socket. Below: Derek Hutchinson, who had a lobotomy in 1974. The indents in his forehead are where holes were drilled into his skull**



MAIN PHOTOGRAPH: CORBIS



# MENTAL CRUELTY

The lobotomy is deemed one of the worst crimes in medical history. But a modern form of it is still practised in Britain – and may soon be performed without the patient's consent. By Christine Toomey and Steven Young. Portraits: Andy Sewell

quite literally, frying," says Hutchinson, tellingly confusing tenses as he describes the brain surgery he underwent in 1974 yet still relives up to a dozen times a day and in frequent nightmares.

Throughout the surgery, Hutchinson was kept conscious; his head held in a brace, his hands and feet strapped to the operating table. Hutchinson, a 27-year-old father of three at the time of the operation, says he had not given his written consent to the operation being performed; neither had his wife – his next of kin. Instead his mother, an alcoholic, had been visited at home, in the late evening, after she had been drinking, and had been asked to sign the form. "My mother thought doctors were gods," Hutchinson says. "She'd have signed anything they asked."

Hutchinson's excruciatingly detailed recollections are a rare testimony of someone still lucid and intensely angry about a type of brain surgery to which he was subjected – he contends illegally – commonly referred to as a lobotomy. In strict medical terms, a lobotomy – or leucotomy, as the procedure became known in this country – involved the removal of part of the frontal lobes of the brain or the severing of neural fibres connecting the frontal lobes to the limbic system – the part of the brain concerned with emotional response and functions not under conscious control.

From the mid-1930s until the early 1960s this form of "psychosurgery" was heralded as a miracle cure for the mentally ill, before psychotherapy came into vogue and drugs to treat many mental-health problems became widely available. It was pioneered by a maverick Portuguese neurologist, Egas Moniz, who was awarded the Nobel prize in 1949 for developing and promoting the procedure (see box on page 55). Lobotomies were seen as the solution to a wide range of mental disorders ranging from profound depression, schizophrenia and advanced neurosyphilis to mild retardation, at a time when half of all hospital beds in many countries were occupied by the mentally ill, and mental institutions were often places of humiliation and horror.

At the height of its popularity in the 1940s and 50s, particularly in the US, some of the most enthusiastic proponents of the procedure promoted it as a way of controlling large numbers of those considered society's worst misfits, including communists and homosexuals. Neurologists, not just in the US but in Japan, Britain and elsewhere, carried out variations of the procedure on tens of thousands of patients – an estimated 50,000 in the UK alone.

Little attention was paid to what happened to those subjected to lobotomies after surgery. John F Kennedy's temperamental sister Rose, who underwent the operation at the age of 23, for instance, spent the next 60 years of her life out of sight in a mental institution. Francis Farmer, the rebellious Hollywood actress and political activist whose outspoken behaviour was also "cured" by a lobotomy, quickly drifted into oblivion and ended her days as a hotel clerk.

But as the number of lives wrecked by such surgery became more widely known, its effect was gradually exposed – most famously in Milos Forman's 1975 film, *One Flew over the Cuckoo's Nest*. But also earlier, in the 1958 play *Suddenly Last Summer*, by Tennessee Williams. A close friend of Williams, whose sister Rose was lobotomised as a teenager, recalls how the playwright talked of his sister as "fragile and gentle", someone hurt by "the harshness of life".

"Things alarmed Miss Rose that would not even be noticed by someone less sensitive. She was just awakening to sexuality and knew almost nothing about it... Rose came home from school one day and said the nuns were using altar candles for self-abuse. She told mother this," the playwright once confided to his biographer Dotson Rader. To the siblings' mother, known even to her children as "Miss Edwina", human sexuality was "the great unmentionable". She promptly took her daughter to the doctor, demanding the "filth" be cut out of her brain: "Cut it away! Miss Edwina ordered. "Make it clean!" "And he did," recalled the playwright, who said his mother never showed any remorse about

## HE WAS CONSCIOUS DURING SURGERY, HIS HANDS AND FEET STRAPPED TO THE TABLE

reducing her daughter to a human vegetable.

Some now consider such practices to be among the most egregious medical crimes of the last century and have called for Moniz, who was later shot in the back by a dissatisfied patient, to be posthumously stripped of his Nobel prize. The Nobel Foundation rules this out, maintaining that all of its awards can be justified within the historical context that they are given.

By the time Hutchinson had his operation in 1974, the scale on which psychosurgery was being performed was drastically reduced, with more and more mental disorders being treated with drugs and psychotherapy. Crude frontal lobotomies, of the type Moniz promoted, had been phased out. Surgery became targeted at more specific parts of the brain as the neurobiology of emotion became better understood. The surgery performed by Wall on Hutchinson's hypothalamus, for instance, was intended to curb his aggression.

Since then, psychosurgery has become even more refined, the parts of the brain targeted and destroyed to control behaviour ever smaller. Though the name lobotomy persists, the medical profession now refers to any such procedure as NMD (neurosurgery for mental disorder). But Britain is now one of the few countries where this sort of surgery is still permitted. Even here it is only performed for persistent severe depression

A coronal incision was made just in front of the hair line. Two large burr holes were then made on either side of the midline. The dura was opened widely and the cortical vessels coagulated. The right lateral ventricle was cannulated and the patient sat up. The Bennett's frame was fixed to the head and the appropriate x-rays taken after Myodil was run into the 3rd ventricle. Nylon balls were fixed in the burr holes with acrylic in the estimated positions. The wound was closed in one layer after it had been sprayed with Polybactrine.



**Left: Hutchinson, who had a lobotomy when he was 27, watches a video of the procedure being performed on a mother-of-five in the mid-1970s by the surgeon Arthur E Wall (below) – who also operated on him. Wall describes the operation as 'quite simple, really' and 'something you pick up as you go along'. Top left: a letter from Hutchinson's doctor, outlining the details of his surgery**

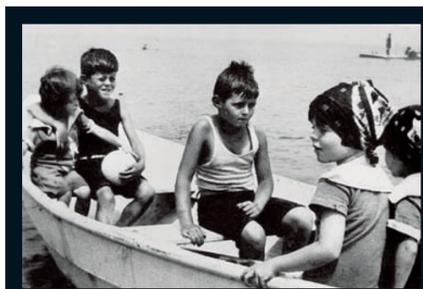


and anxiety and obsessive-compulsive disorder (OCD) in two places: University Hospital of Wales in Cardiff, and Ninewells hospital, Dundee. Patients must consent to the surgery and ethical and clinical standards committees subject each case to rigid scrutiny before it goes ahead.

If the worst excesses are in the past, the type of surgery now conducted so controlled and the numbers to whom it is given severely limited, some might argue that the subject of lobotomies, psychosurgery, NMD – call it what you will – is only of historical interest. They would be wrong.

In the coming month, parliament is expected to finally debate another hotly contested piece of proposed legislation: the draft Mental Health Bill (2004), which many mental-health experts fear will reduce safeguards for the mentally ill. One provision of the bill is a little-noticed clause that, if passed onto the statute books, would allow doctors to perform NMD without a patient's consent if they were considered so mentally ill they were incapable of giving it.

No matter how refined these latest NMD techniques are, nor how vociferously neurosurgeons who practise it argue it is nowadays employed only as a last resort, its outcome is often unpredictable. Since it is irreversible, some believe it should be banned. At the very least it should only be conducted on those able to give their informed consent, argue



**FAMOUS LOBOTOMY CASES**  
Top: Rose Kennedy (far right), JFK's sister, had the operation at 23. Above left: the actress Frances Farmer. Above right: Lena Zavaroni, who died a month after her lobotomy

TOP IMAGE IN BOX: AP

campaigners such as the mental-health charity Mind and the Mental Health Alliance, which includes such bodies as the Royal College of Nursing, the Royal College of Psychiatrists, the Law Society and dozens of other organisations in the field of mental health.

With many of those who have undergone such surgery unable to speak for themselves and few of those subjected to the cruder forms of surgery still alive, Derek Hutchinson's is the rare voice of experience. His story serves as a chilling reinforcement of the adage that a society be judged by the way it treats its most vulnerable. With the government proposing legislation that many believe would turn the clock back on the way we treat the mentally ill, what does that say about modern Britain?

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As Hutchinson sits talking in the cramped living room of his small terrace house in Leeds, he frequently stretches out his arms to hug his two-year-old grandson, one of 17 grandchildren. While the boy giggles with delight, Hutchinson, 59, talks a little of his own childhood. He recalls how his mother would often lock him, the middle of three brothers, in a coal shed overnight. "Glass were all broken. I'd have to sleep in coal sack, night after night. It went on for years," he says. But he prefers not to dwell on it. "That's all done now, in the past."

On his own admission, Hutchinson grew into a troubled youngster. Though he channelled his aggression into amateur boxing and other sports, he was, he admits, "always in trouble as a lad" and would often get into fights. After a spate of joyriding cars as a teenager, he was sent to a series of borstal schools, then remand homes. Eventually he found work as a welder, married and had three children. When he was 27, however, he suffered a nervous breakdown. After being admitted to a psychiatric hospital, he was given ECT (electroconvulsive therapy) and prescribed strong sedatives. His psychiatrist then recommended that he undergo psychosurgery.

According to Hutchinson, the psychiatrist tried to persuade him such surgery was necessary to curb his aggressive tendencies after asking him how he would feel if Hutchinson were ever to kill one of his own children. "I'd never harmed any of my children. I never would. But when he put it like that, I was scared." Still, Hutchinson was considered incapable of giving consent, as he was so heavily sedated. At first his wife agreed to the operation. But after seeing the sizable holes that had been drilled into her husband's skull in preparation for the second part of the operation a week later, she withdrew her consent. It was then that his mother was approached.

In a 1976 TV documentary on the same operation as Hutchinson underwent, being performed on a mother-of-five called Margaret Chapman, the neurosurgeon Wall, who has since died, describes the operation as "quite simple, really". He then casually

admits knowledge of psychiatry is "something you pick up as you go along". But far from curing Hutchinson's aggression, which he describes as "within his control" before the operation, the surgery he underwent left him so traumatised that he walked out on his first wife, Ruth, who had recently given birth to twins, fearing he might do his children harm. He subsequently attempted to physically attack the psychiatrist who had referred him to Wall, and several years later tried to commit suicide. Though he eventually resumed work and remarried, he has suffered vivid flashbacks of the operation ever since, and in recent years has been diagnosed as suffering from post-traumatic stress disorder.

However troubling Hutchinson's story is, it is by no means the result of the most cavalier practitioner of psychosurgery in this country. The neurosurgeon reputed to have been Britain's most prolific lobotomist was the former president of the Society of British Neurological Surgeons (SBNS), Sir Wylie McKissock, based at Atkinson Morley's hospital in Wimbledon in the late 1940s and 50s. McKissock is described by those who knew him as a taciturn and difficult man, much feared by his junior staff. He rarely spoke to or met patients before or after surgery. Instead, at weekends, he made regular tours of nursing homes and mental hospitals along the Sussex coast. With the aid of ➤

a theatre sister, he would perform, for cash, up to 10 a day of the crude frontal lobotomies pioneered by Moniz. McKissock is understood to have performed around 2,000 such operations.

Few records exist of the reasons they were performed or their outcome; but a 1949 study of 300 of McKissock's lobotomy patients recorded that 16 had died as a direct or indirect result of the operation. It is impossible, therefore, to assess how many of these operations were performed needlessly. But the experience of those such as Hutchinson, and the accounts of relatives of others who underwent earlier forms of psychosurgery, attest to it having been performed for flimsy reasons and to disastrous effect by some British surgeons, just as it was in the US.

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One such case is that of Ronald Shaw, whose brother Raymond, a 69-year-old retired painter and decorator from Liverpool, describes as "a very, very clever lad" when he was younger. "He was very good at art. He loved to draw cartoons. Our father was a sign writer and he sent some of Ron's cartoons to a London newspaper when we were still teenagers," Raymond recalls of his elder brother. "They wanted Ron to draw more and were going to pay him quite well. But he suffered with his nerves. He never did it."

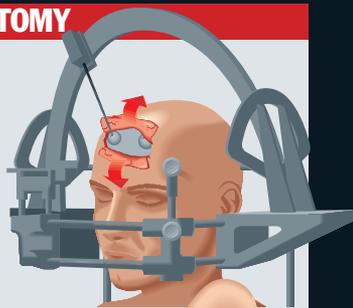
When Ronald was in his early teens, his brother remembers he started coming home from school crying and would often wake up screaming in the night. The boy was admitted to hospital and given ECT. It failed to help. "Years later, we discovered, through another boy who was at school with Ron, that there was a teacher who used to regularly take my brother into a back room to cane him. Who knows what else he did to him in that room. I believe now that it was this bullying that caused my brother to behave the way he did."

When he was 17, Ronald volunteered to join the army, but within a year was discharged with a knee injury. In 1955, when Raymond was stationed in the Far East, completing his national service, his brother was admitted to Rainhill hospital in the St Helens district of Liverpool and a frontal lobotomy was performed. "I knew nothing about it. When I came back from the Far East, my brother was destroyed. He did not talk for two years. Eventually he started to speak, but he was never the same again. He was never able to work. My parents spent the rest of their lives looking after him. Their lives were ruined too. After they died he lived alone, though I took him out as much as I could."

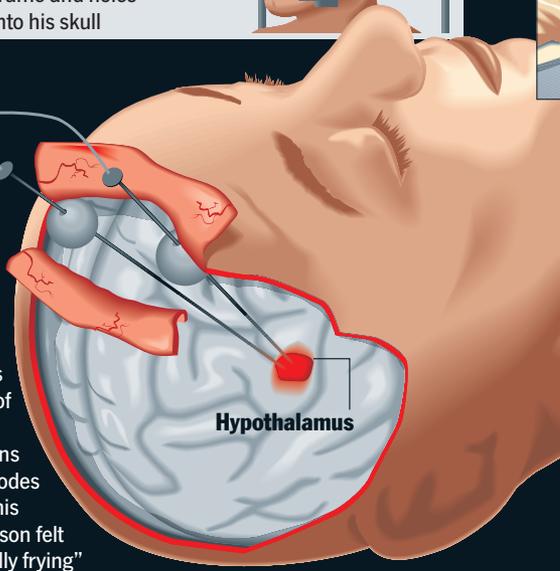
Ronald Shaw died last year. His partially skeletal body was found in a field months later. His brother believes he was trying to walk to the Marble Church in Holywell, which had always fascinated him, when he stopped for a rest and died of natural causes. His body had been run over by a tractor after his death and his remains were surrounded by diaries he kept of his daily activities. "I'd been driving all over the country looking for him for months. Then the police called, saying they'd found a body with holes

## HUTCHINSON'S LOBOTOMY

1 In 1974, Derek Hutchinson had a lobotomy to "curb his aggressive tendencies". The objective was to destroy the part of his brain associated with anger and fear. Prior to surgery, his head was strapped into a stereotactic frame and holes were drilled into his skull

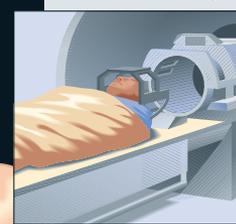


2 Electric shocks are administered to nerve centres in the hypothalamus at the centre of Hutchinson's brain, by means of thick electrodes inserted into his skull. Hutchinson felt he was "literally frying"



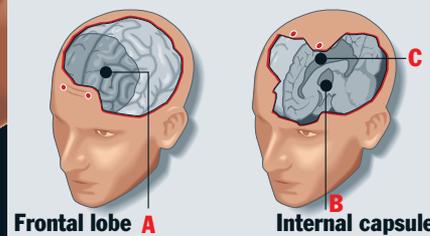
## MODERN-DAY PROCEDURES

Today, psychosurgery is known as NMD (neurosurgery for mental disorder) and is used to treat obsessive-compulsive disorder, anxiety and severe depression



1 NMD procedures aim to interrupt the nerve circuits within the limbic system. A stereotactic frame is used to locate specific targets within the brain during MRI scanning

2 Three types of NMD: in subcaudate tractotomy (A), an inner part of the frontal lobes is targeted. In bilateral capsulotomy (B), probes are passed into the internal capsule. In anterior cingulotomy (C), probes are passed into an inverted C-shaped structure inside each brain hemisphere



## SEVERAL YEARS AFTER SURGERY HE TRIED TO COMMIT SUICIDE. HE STILL HAS FLASHBACKS



**Above: Raymond Shaw, whose brother, Ronald (shown right, as a boy), never fully recovered from his lobotomy and was found dead in a field (far right) last year**

drilled in the front of his skull and I knew it was Ron," says Raymond, his voice cracking. "It's unforgivable what was done to him."

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Supporters of modern-day psychosurgery, or NMD, argue it has moved light years from the notorious excesses of such early practices. Yet even the crudest operations, they stress, were effective in alleviating the mental suffering of

some patients. One former president of Ireland's Royal College of Surgeons, who is believed to be one of the few surviving neurosurgeons to have carried out the conventional frontal lobotomy on a regular basis, sits sipping a gin and tonic as he demonstrates with a cake knife how he used to sever or core out part of the frontal lobes of his patients to break the nerve "circuits" believed responsible for mental illness. He carried out two operations every Saturday morning, at the request of the Irish Department of Health, for nearly 10 years until 1960.

Immaculately dressed in a tweed suit, he recalls how the operation helped one vet obsessed with a fear of constipation who ate fruit constantly and spent all day in the toilet. After the operation he was able to return to work. He also talks of performing lobotomies on more than 20 priests with perceived personality disorders. But, he says, in his experience the surgery did more to help those who were returned to closed orders rather than allowed to return to the community. Lobotomies, he says, did little to help those with schizophrenia, neurosyphilis or personality disorders other than obsessive-compulsive disorder and severe depression.

Those forms of NMD still being conducted in this country today are targeted at the treatment of severe depression, severe anxiety and OCD. These procedures, which involve minute destructive lesions in parts of the frontal lobe or limbic system, are known as cingulotomies – the cingulum being the part of the frontal lobe associated with OCD – and capsulotomies, which involve making lesions in the capsules: the dense nerve-fibre pathway connecting part of the frontal lobe with the limbic structure. ➤➤➤

Neurosurgeons at Ninewells hospital in Dundee, for instance, carried out 34 NMD operations between 1990 and 2001. In the past year the hospital has conducted five such operations on patients it describes as “among the most severely ill and disabled who come into contact with any branch of the medical professions”. Surgeons at the University Hospital of Wales in Cardiff have conducted 56 NMD operations in the past decade. It was there that the former child singing star Lena Zavaroni, who suffered from anorexia, underwent such surgery in 1999 for severe depression. Though the operation seemed to have been a success, she died of pneumonia less than a month later. According to Brian Simpson, consultant neurosurgeon at Cardiff, the operations his team have conducted have led to a “marked improvement” in roughly half of those being treated for severe depression and OCD. “NMD is not a panacea,” Simpson agrees. “It is carefully regulated and only offered to patients for whom all other treatments have failed... But in the patients for whom it works well, whose suffering has been indescribable, it transforms their lives.”

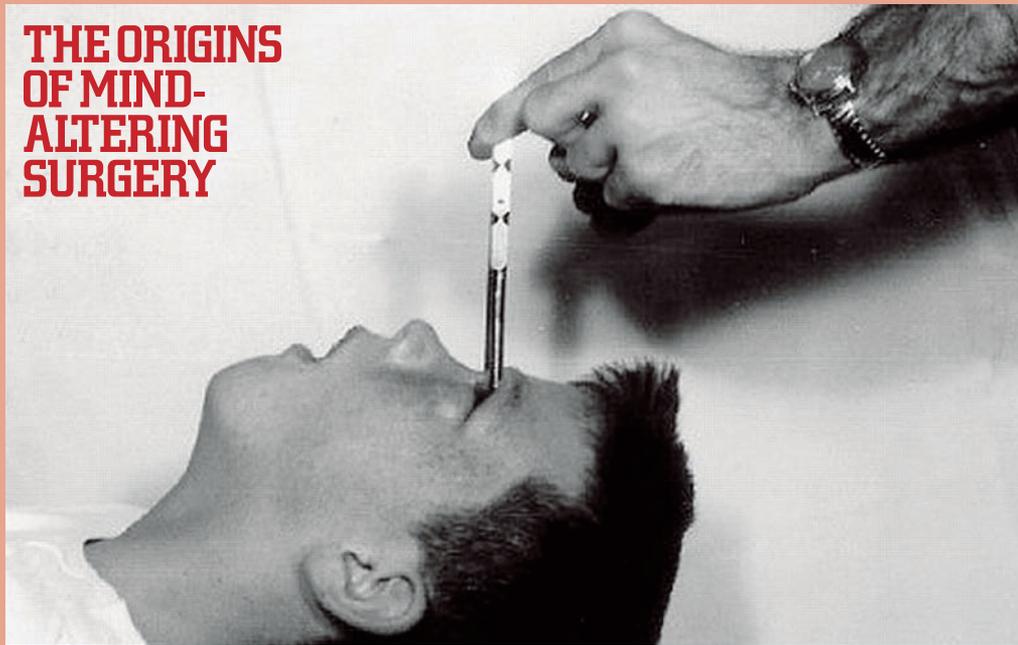
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Some believe the way ahead lies in other forms of brain surgery, such as deep brain stimulation with implantable electrodes, as are increasingly used to treat Parkinson's disease. This they believe could offer an alternative to the ablative

## ‘THE POLICE FOUND A BODY WITH HOLES DRILLED INTO ITS SKULL. I KNEW IT WAS MY BROTHER’

operations that have been used to date in psychosurgery. The introduction of modified stem cells into certain parts of the brain has also already had experimental success in treating some neurological conditions and holds out hope for combating psychiatric disease. But it is the irreversible nature of the NMD still practised that concerns opponents. That this type of surgery could be carried out without a patient's consent, according to the proposed legislation, they reject outright. Under the current Mental Health Act of 1983, three independent people, one a doctor, has to certify that any patient undergoing psychosurgery understands the treatment and consents to it. The draft mental-health bill under consideration has broadly the same safeguards for those capable of giving consent. The main difference is that it allows for treatment to be given without the patient's consent, at the request of doctors and on an order of the High Court, providing three conditions are met. The first is if it can be verified that a patient does not have the capacity to consent. The second is if there is no reasonable

## THE ORIGINS OF MIND-ALTERING SURGERY



**E**gas Moniz could have afforded to rest on his laurels by the time he attended the Second World Congress of Neurology in London in 1935. The 61-year-old professor of neurology, and dean of Lisbon's Medical School, had already gained an international reputation for pioneering cerebral angiography — a radiological technique for mapping brain vessels. But Moniz was disappointed that this had not won him the Nobel prize. So when he heard two Yale neurologists speak at the London congress about experimental brain research on two chimpanzees called Clyde and Becky, observing how Becky's temper tantrums subsided after surgery, he would go on to pioneer — and relentlessly promote — a procedure that eventually won him the coveted Nobel prize.

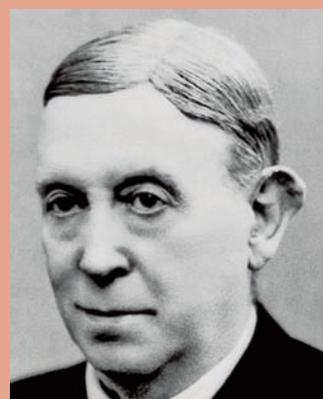
The procedure was the lobotomy. Back in Lisbon he ordered that a human brain be brought to him from a morgue, and thrust a pen through the cortex several times until he was satisfied he knew the approximate angle and depth that would best detach the frontal lobes. He performed the operation on a former prostitute, who afterwards was unable to give her age or say where she was. She was returned to an asylum, never to be seen by him again.

Moniz nonetheless considered this a “clinical cure” and continued operating. The procedure was greeted with enthusiasm by the medical profession and went on to

be practised in many countries. After Moniz won the Nobel prize in 1949, the lobotomy's popularity increased. But today many believe the procedure is barbaric, and are campaigning for him to be stripped of the award.

The Nobel Foundation contends that Moniz's prize should be judged in the historical context of a period when there was widespread despair about mental-health treatment. In the 1930s and 40s, patients were often beaten, choked, spat on and humiliated by attendants in state hospitals, where the average duration of confinement was 10 years. Cost was also a factor. In the mid-1930s a lobotomy cost \$250 in the US, compared with tens of thousands of dollars to keep a patient incarcerated. The drawback of the operation — that it robbed patients of their personality traits — was considered a small price for

**Above: a boy, 12, has an ‘ice pick’ lobotomy in 1960. Below: Egas Moniz, who pioneered the lobotomy in the 1930s**



emptying hospital beds.

If Moniz brought the lobotomy fame, then the US physician Walter Freeman brought it infamy. A tireless self-publicist, he would perform his variation of Moniz's operation — the “ice pick” lobotomy — before an enthralled audience. This involved driving an ice-pick-like instrument through the roof of the eye and sweeping it across the frontal lobe to scramble neural connections. Freeman once boasted he was “as good as Frank Sinatra” in getting young people to faint at the sight of what he did. One of his patients, Howard Dully, was 12 when he was lobotomised because his stepmother said he was sullen and refused to bathe.

It was not until the mid-1950s, with the advent of antipsychotic and pacifying drugs such as chlorpromazine, that the lobotomy began to fall out of favour.

The role of psychosurgery came under greater scrutiny in the 1960s and 70s, when social unrest led some sociobiologists to consider it a tool for addressing violence and “psycho-civilising” society through the use of implantable brain electrodes.

Despite growing unease, more refined procedures such as cingulotomies were developed and the modern era of psychosurgery was born. Such procedures remain controversial and have been banned in Germany, Japan and a number of US states. They are still practised in the UK, Finland, India, Sweden, Belgium and Spain ■