

Mythical Origins



The sacred islands of Japan were created by two gods who descended from heaven to perform the task.

The Sun Goddess



Amaterasu, the Sun Goddess, sent her grandson to rule over the sacred islands. An unbroken line of imperial descent was established to a divine Emperor. The Rising Sun, the symbol of Japan, originated in 660 B.C. as a tribute to the Sun Goddess.

The Impact of Myth on Reality



The mythical origin of the sacred islands exerted major social, cultural, religious and legal effects on modern Japan.

*Heart Transplantation in Japan.
Background, Problems, and Resolutions.*



Organ Transplantation

Few medical procedures have proven as effective in saving lives as organ transplantation, one of the miracles of modern medicine.



Voice of the Crane

An Imperial Emblem

Announcements from the throne were known as the *Voice of the Crane*, a bird that could be heard even when unseen.



The Voice of the Crane Imperial Rescript

15 August 1945



To our good and loyal subjects. After pondering deeply the conditions obtaining in our Empire today, We have decided to effect a settlement by resorting to an extraordinary measure. We have ordered our government to end the war by accepting the provisions of the United States, Great Britain, China and the Soviet Union.

The Pacific War Ends

Daily Mirror FROM 1939 TO 1945
FORWARD WITH THE PEOPLE
No. 15,000 ONE PENNY
Published at G.P.O. as a Newspaper.

PEACE

JAPAN SURRENDERS— ALLIES CEASE FIRE

Piccadilly, caught napping, woke up

"Daily Mirror" Reporter

LONDON, August 15 (AP)—The city of London today awoke to the sound of a new day, a day of peace, a day of freedom, a day of joy, a day of hope, a day of love, a day of peace.

Troops had to rescue the police

LONDON, August 15 (AP)—The city of London today awoke to the sound of a new day, a day of peace, a day of freedom, a day of joy, a day of hope, a day of love, a day of peace.

Today and tomorrow V-days

"Enjoy yourselves" call by Attlee at midnight

"Daily Mirror" Reporter

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PEACE HAS ONCE AGAIN COME TO THE WORLD. LET US THANK GOD FOR THIS GREAT DELIVERANCE AND HIS MERCIES." IT WAS THE VOICE OF THE PRIME MINISTER, BROADCASTING FROM NO. 10, DOWNING-STREET AT MIDNIGHT TO TELL BRITAIN THAT JAPAN HAS SURRENDERED.

Japan has accepted the Allied terms without qualification. The Japanese Emperor is to order all his forces to lay down their arms and obey all commands of the Allied Forces.

ALLIED ARMED FORCES HAVE ALREADY BEEN ORDERED TO SUSPEND OFFENSIVE OPERATIONS. AN ATTACK BY HUNDREDS OF PLANES WAS CALLED OFF IMMEDIATELY.

In his broadcast to the British people, the Prime Minister said: "Let all who are able and desire themselves to be of service to their country, do so."

Answer to a Riddle

It is only a riddle that has been solved since the South Sea Islands were discovered by James Cook in 1770. The riddle was: "A land of the living, a land of the dead, a land of the living and the dead." The answer is: "The South Sea Islands."

ETAIN SENTENCED TO DEATH

MARSHAL HATA was sentenced to death at 10.30 this morning.

9 p.m. BROADCAST BY THE KING

The King will broadcast at 9 p.m. tonight. There will be a 15-minute service on the B.B.C. at 11.15 p.m.

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CALOGEN

December 23, 1954.

Drs. Joseph Murray and John Merrill of Peter Bent Brigham Hospital transplanted a kidney from one monozygotic twin to another.



Japan's First Organ Transplantation

1956



Niigata University

A kidney was temporarily
transplanted into a patient with acute renal failure.

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Tokyo University 1964



A kidney was permanently transplanted into a patient with chronic renal failure.

1968

*First Heart Transplantation in Japan
The First Was The Worst*



A Major Step In The Wrong Direction



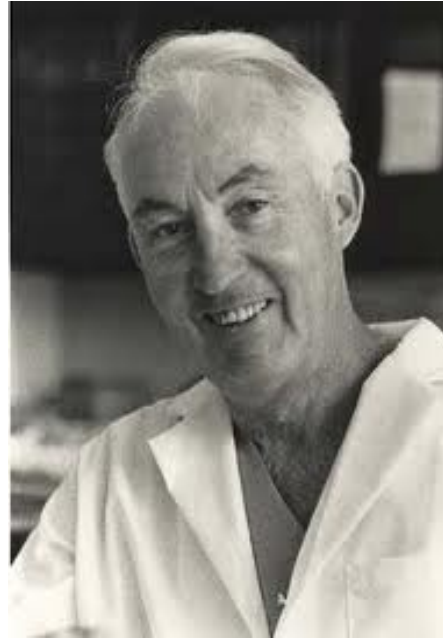
The 1968 heart transplantation in Japan was an unqualified disaster. The recipient died. The surgeon was accused of murdering the donor. The procedure was stigmatized.



The road from the 1968 debacle was long, tortuous and replete with social, cultural and religious barriers that weighed heavily against heart transplantation in Japan.

Shumway

Judgment Trumps Notoriety



Norman Shumway had the surgical skill to perform a human-to-human heart transplantation, but he also had the judgment not to do so before the problem of rejection had been resolved.

Christiaan Barnard

Notoriety Trumps Judgment



On December 3, 1967 in Cape Town South Africa, Dr. Christiaan Barnard performed the first human heart transplant into a 55 year old man who lived for 18 days. A few weeks later, Barnard transplanted a heart into a 59 year old man who lived for 19 months and 15 days. The 45 year old surgeon was widely praised for these daring accomplishments. He graced the cover of Time Magazine and toured the world as a celebrity.

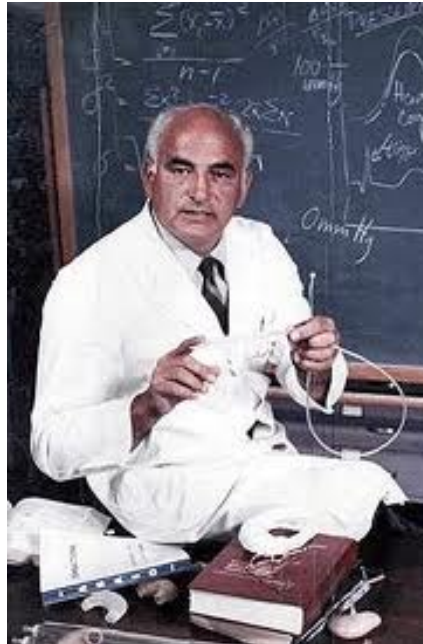
News That Stayed News



First U.S. Heart Transplant

Little Known Nor Long Remembered

On December 6, 1967, three days after Christiaan Barnard performed the world's first cardiac transplantation, Dr. Adrian Kantrowitz at the Maimonides Hospital in Brooklyn, implanted the heart of a baby into the chest of an infant with end-stage congenital heart disease.



Post War Japan



On New Year's day 1946, Emperor Hirohito shocked the Japanese people by renouncing his divinity. The stage was set for seven years of harmonious, enlightened American occupation.

Douglas MacArthur and the Emperor

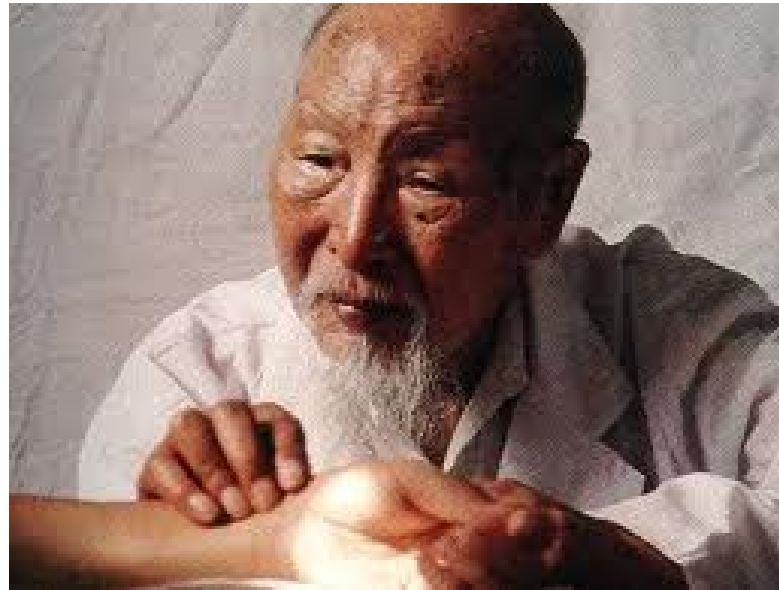


The MacArthur Commission



The laws that restricted political, civil and religious liberties were abolished. Free democratic elections were instituted. Women's rights were recognized.

*Traditional Chinese Medicine.
Relegated to the Past.*



Organ Transplantation

Despite major achievements in other fields, Japan lagged far behind in organ transplantation.



Why was this the case?

Heart Transplantation

The obstacles in Japan were different from those that prevailed elsewhere.



Entrenched legal and cultural obstacles and national biases were more difficult to resolve than medical constraints.

Removal of a Viable Heart Ends the Life of Its Source

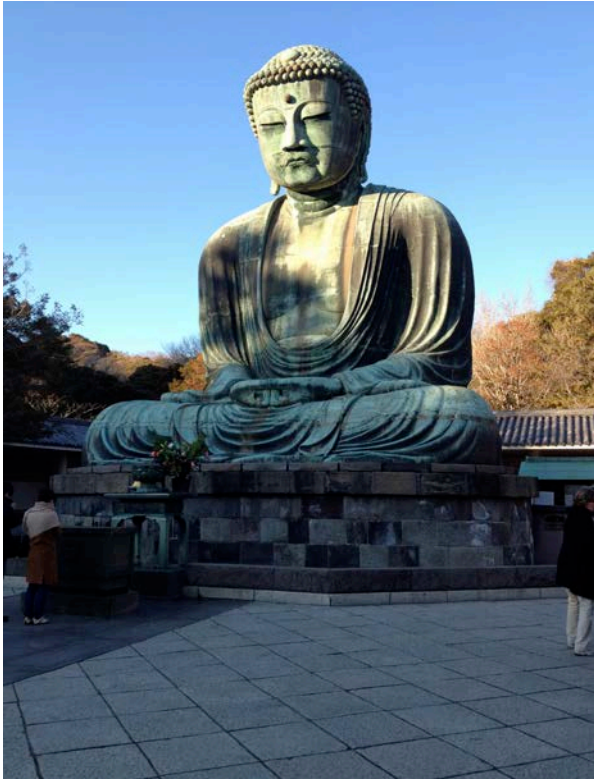


Death is undisputed when defined as cessation of function of the heart, the brain, and the lungs.

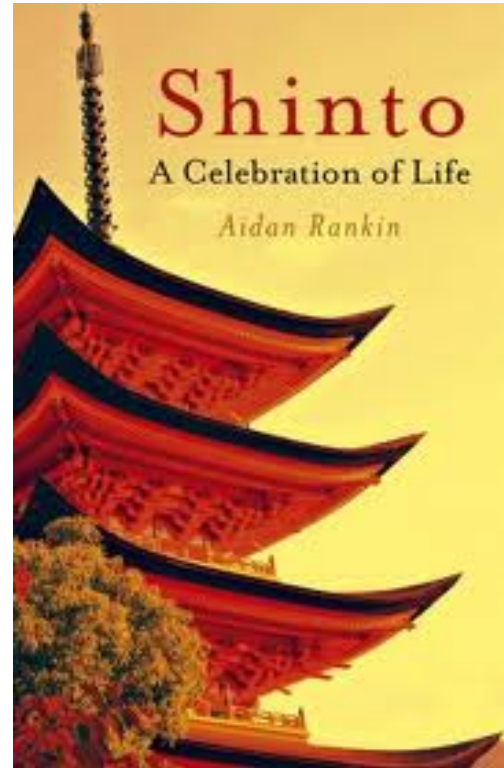
The Influence of Confucius



Confucianism taught that our body must be kept intact after death because it was a gift from our parents and ancestors.



Buddhism



Shintoism

Two religions that taught that organ transplantation devalued life on earth and in the hereafter.

*The Pivotal Question.
How Should Death Be Defined?*



Who Am I ?

Death

Death is a fact we discover, not a status we confer.



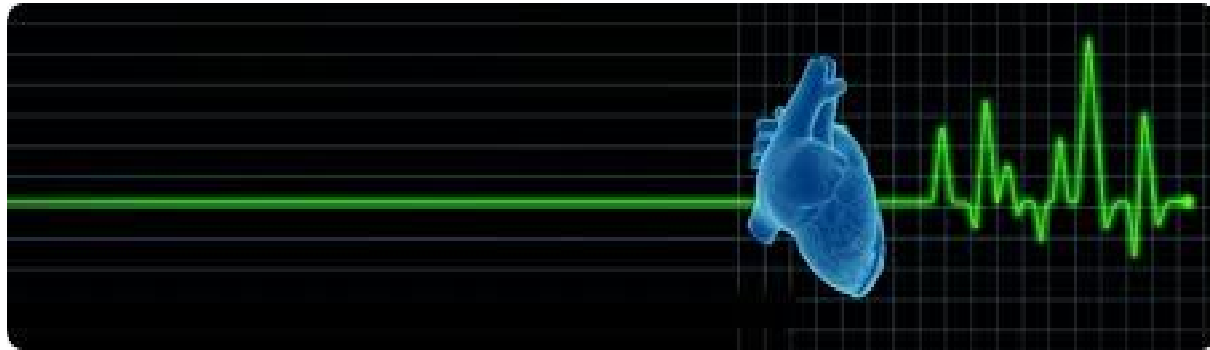
- I WANT A SECOND OPINION

John Doe

The medieval heart was very different from the organ we know today, considerably more complex and vulnerable, a physical, spiritual and psychological trinity. Life was dependent on the vivifying action of the soul that resided in the heart.



The Heartbeat



Vital organs could not be removed from the body until after death. However, death was defined as cessation of the heartbeat, and once the heart stopped beating, it rapidly deteriorated and became useless for transplantation.

*Death of the Buddha.
By What Criteria?*



The Heartbeat

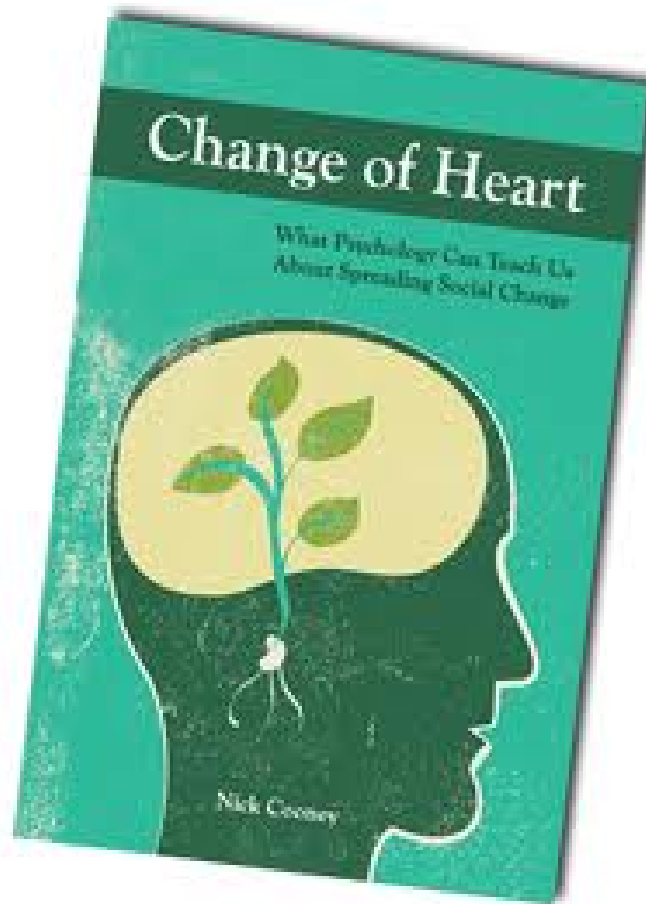


Death of the Buddha

Andreas Versalius and the Inquisition



Time for a Change



The Dawn of a New Japan



The Japanese realized that the old way of doing things had failed.
The war had been a humiliating defeat.
The country was ripe for change.

Brain Death

The first European country to adopt brain death as a legal definition was Finland in 1971.



Brain Death

In over 90 percent of cases of organ donation in the United States, *death* is defined as *brain-death*.

However, brain death accounts for only 2% of those who die.

When life support is discontinued in a brain dead patient, cardiac death soon follows.

Japan was the only advanced country in the world that did not accept the concept of brain death.



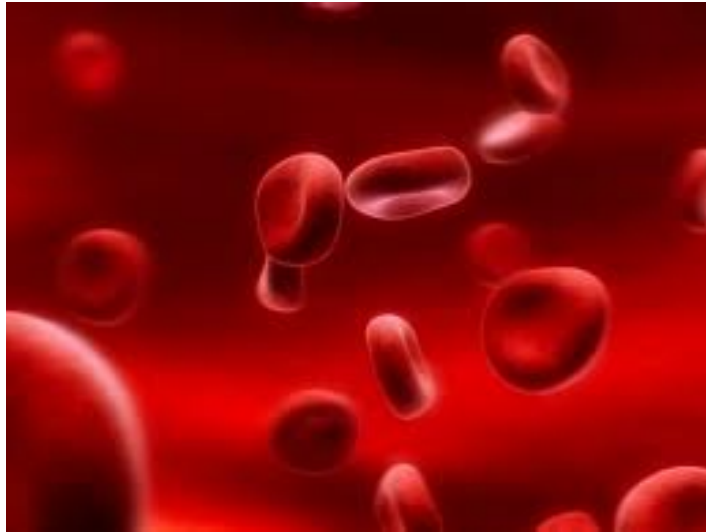
Counter Intuitive

Ordinary people could not accept the concept of brain death because the body was still warm and moist, and therefore alive.



Warm, Moist, Alive

That had to be so because warm blood was
circulated by the beating heart.





In 1983, Japan's the Ministry of Health and Welfare established a Committee to study the concept of brain death.

The Unique Brain

The only organ that can study itself



What Am I Thinking?

*Brain death conflicted with
intuition and common sense.*



Unlike cessation of the heartbeat, brain death was invisible, counter intuitive, difficult to recognize.

Beyond Imagination



Our immediate surroundings are bizarre beyond anything imaginable. We are living on the surface of a giant ball rotating on its axis at surface speeds of a 1000 miles an hour while at the same time hurtling through space. This is counter-intuitive, impossible to see or feel even though it is known to be true.

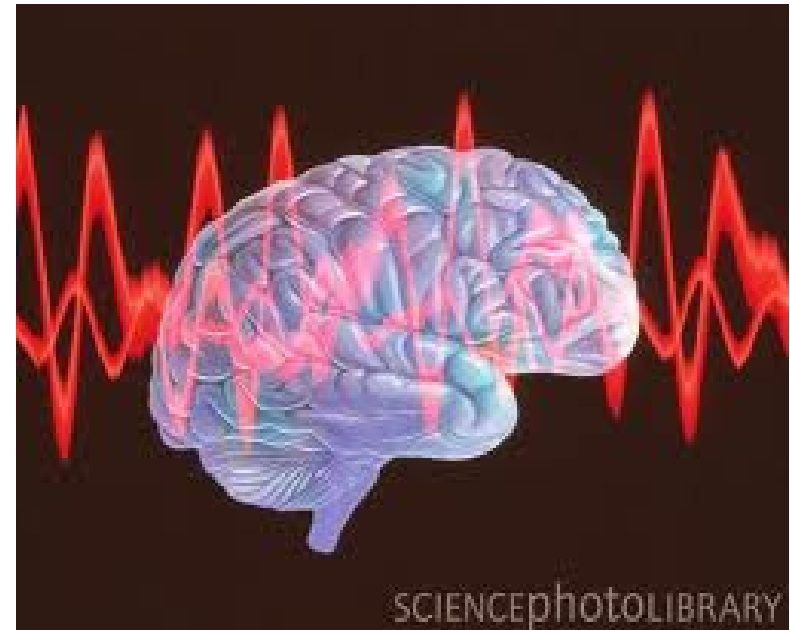
Bryan Magee, Confessions of a Philosopher

The Electroencephalogram

A technique for recording electrical activity within the brain.

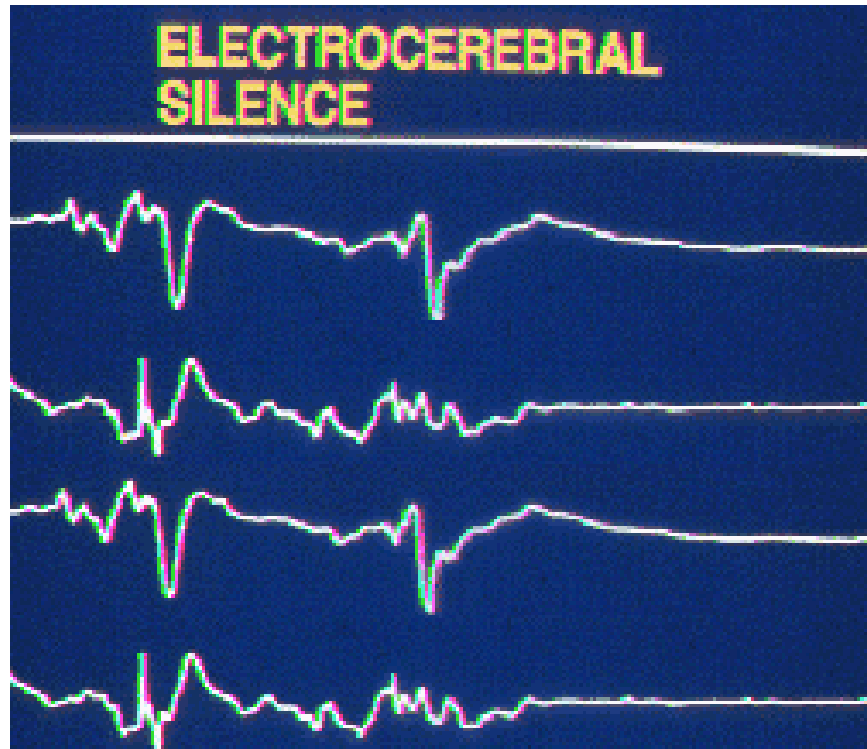


The Technique

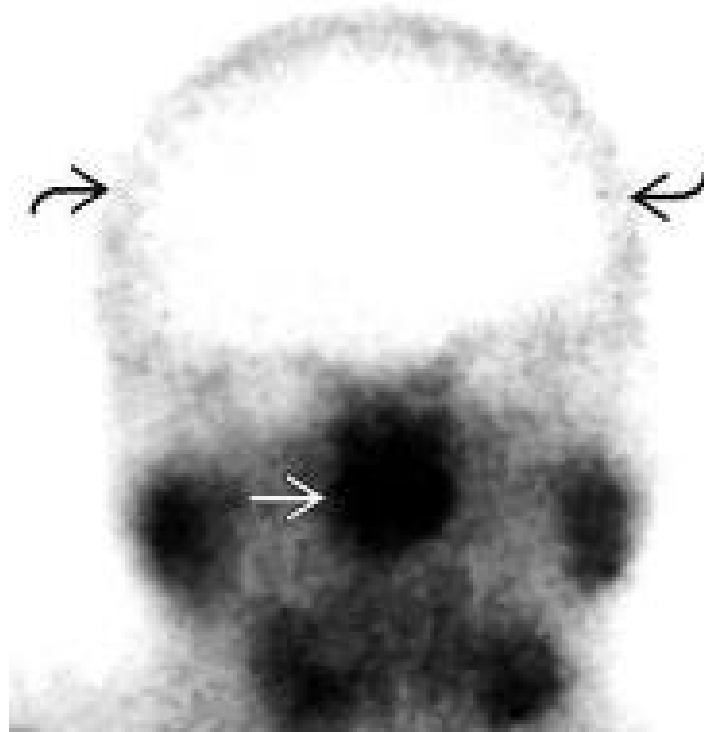


The Brain Activity

A Brain Dead Electroencephalogram



A Brain Dead Radionuclide Cerebral Scan



Complete Absence of Intracranial Blood Flow

Criteria for Irreversible Brain Death

Two isoelectric (flat-line)
electroencephalograms within
24 hours, or

A radionuclide cerebral scan with
complete absence of intracranial blood
flow.

April 1997---Issue Finally Resolved

Japan's Lower House of Parliament, by a vote of 323 to 144 recognized the concept of brain death. The bill then passed in the Upper House by a large majority.



Japan's Houses of Parliament

Infants & Children

Despite the 1997 decision of the Japanese Parliament, laws governing heart transplantation, oddly did not apply to infants and children.



Hidemi Dodo
An Early Effort



A Visionary Advocate

Hidemi Dodo, a pediatric cardiologist at Tokyo National Children's Hospital, recognized the need for redefining death. Brain death, not cessation of the heart beat was the definition necessary for heart transplantation.

But Dr Dodo's voice was not the Voice of the Crane. Response was slow in coming.



*Ryōtei
A High Level Conference*

Hidemi Dodo

Dodo, H. Heart Transplantation in Children in Foreign Countries. Medical, Transportation and Financial Issues. Jpn Circ J 2000.

Heart transplantation is accepted therapy for end-stage heart failure in both adults and children. In October 1998, the law in Japan recognized brain death, and permitting organ transplantation from brain-dead patients. However, the law did not recognize brain death in children, so transplantation from neonates, infants and young children was virtually impossible.

Eight patients have been transferred to the USA for heart transplantation, four successfully, and four dying during the waiting periods.

*Dodo H. Pediatric Heart
Transplantation Outside Japan.
Acta Cardiologica Paediatrica
Japonica. 2006.*

Because of constraints imposed by Japanese law, pediatric patients have virtually no chance of undergoing heart transplantation in their home country. The only way to receive a heart transplantation is to go abroad. However, relatively few countries accept transplantation patients, and those that do so, impose limits on the number. Heart transplantation is not covered by regular insurance, so cost is a major issue. Transportation of these critically ill patients is compounded by cultural and linguistic barriers.

The Problem as a Human Interest Story

Because heart transplantation was virtually impossible under the existing laws of her country, Miyuki Monobe, an 8-year-old girl, accompanied by three doctors and two nurses, was flown from Shinagawa, Japan to Los Angeles, a distance of over five thousand miles. Sympathetic donors had contributed nearly \$600,000 to help Miyuki. Her case aroused calls for a change in legal restrictions that forced patients to seek transplants overseas. Japanese doctors argued for revision of the policy that defined death as cessation of the heart beat. In 1997, both Houses of Parliament passed a bill that recognized brain death.

Too late for Miyuki.

Reluctance & Doubt

Organ transplantation is one of the most complex fields of modern medicine. The outcome of heart transplantation in Japan has been excellent, but tradition and cultural constraints still weigh heavily, and undercurrents of doubt persist.



An After Thought About the Heart



If the soul resides in the heart as Aristotle believed, does the recipient of a heart transplant have two souls in one lifetime---an indigenous soul and a transplanted soul?



If body and soul are directly linked, is giving or receiving an organ like losing a part of one's soul or receiving a part of someone else's?

*Thank You From the Bottom of My
Non-Transplanted Heart*



Ideas Happen at Ryotei



Special Japanese Restaurants That Feature Service by Geisha.

New customers are accepted only by referral. The key element in *ryotei* mystique is meticulous attention to detail.