

Part Three: Pediatrics

Digital subtraction angiography--a new approach to brain death determination in the newborn.

AU: Author

Albertini A; Schonfeld S; Hiatt M; Hegyi T

AF: Author Affiliation

Department of Pediatrics, UMDNJ-Robert Wood Johnson Medical School, St. Peter's Medical Center, New Brunswick 08903.

SO: Source

Pediatric radiology, 1993, 23(3):195-7

IS: ISSN

0301-0449

AB: Abstract

The diagnosis of brain death in the newborn infants is elusive and often difficult. The lack of cerebral blood flow has become an identified criterion for loss of cerebral function. The diagnosis can be obtained by the technique of digital subtraction angiography, which is presented in two case reports demonstrating the utility of this technique.

LA: Language

English

PY: Publication Year

1993

PT: Publication Type

Journal Article

CP: Country of Publication

GERMANY

DE: Descriptors

Angiography, Digital Subtraction; Brain Death: radiography; Case Report; Cerebral Angiography; Cerebrovascular Circulation: physiology; Female; Human; Infant, Newborn

LR: Last Revision Date

20001218

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Index Medicus

AN: Accession Number

8332407

RO: Record Owner

National Library of Medicine

SF: Subfile

BIOETHICSLINE; Index Medicus

AN: Accession Number

7803825

TI: Blood Levels of Cytokines in Brain-Dead Patients: Relationship With Circulating Hormones and Acute-Phase Reactants.

AU: Amado-Jose-A {a}; Lopez-Espades-Francisco; Vazquez-Barquero-Alfonso; Salas-Eduardo; Riancho-Jose-A; Lopez-Cordovilla-Juan-J; Garcia-Unzueta-Maria-T

AD: {a} Endocrine Unit, Hosp. Valdecilla, 39008 Santander, Spain

SO: Metabolism-Clinical-and-Experimental. 1995; 44 (6) 812-816.

PY: 1995

DT: Article-

IS: 0026-0495

LA: English

AB: We hypothesized that increased levels of blood cytokines occur in brain-dead patients, and that these cytokines are responsible for some of the endocrine and/or acute-phase reactant abnormalities found in these patients. We measured blood levels of cytokines, hormones, and acute-phase reactants in 18 brain-dead potential organ donors at the moment of establishing the legal diagnosis of brain death and compared them with levels found in a control group. Although interleukin-1-beta (IL-1-beta) and tumor necrosis factor-alpha (TNF-alpha) levels were within the normal range, interleukin-6 (IL-6) levels were clearly above the normal range in all patients (median, 1,444 pg/mL; range, 75 to 11,780). In the brain-dead group, total thyroxine (tT-4), free T-4 (fT-4), triiodothyronine (T-3), thyrotropin (TSH), dehydroepiandrosterone sulfate (DHEA-S), testosterone, albumin, Zn, and osteocalcin levels were decreased, T-3 resin uptake index (T-3 RUI), corticotropin (ACTH), cortisol, 11-deoxycortisol (11-DOC), 17-hydroxyprogesterone (17-OHPr), aldosterone, luteinizing hormone, and follicle-stimulating hormone levels were normal, and reverse T-3 (rT-3), renin, and C-reactive protein (CRP) levels were increased. Multiple regression analysis demonstrated significant interrelations between IL-6 and T-4, T-3, testosterone, and CRP. We also studied the evolution of some of these parameters in four patients with severe head injury who finally developed brain death. IL-6 levels on admission to the intensive care unit (ICU) were above the normal limits, as in other patients with cranial trauma, but when the patients developed brain death, there was a pronounced increase in IL-6 levels. We conclude that brain death is accompanied by high levels of IL-6. IL-6 may be partially responsible for the hormonal and acute-phase reactant abnormalities found in these patients.

AI: Y

MC: Endocrine-System (Chemical-Coordination-and-Homeostasis); Enzymology- (Biochemistry-and-Molecular-Biophysics); Neurology- (Human-Medicine, Medical-Sciences); Pathology-

ST: Hominidae-; Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

CB: THYROXINE-; TRIIODOTHYRONINE-; TSH-;

DEHYDROEPIANDROSTERONE-SULFATE;

TESTOSTERONE-; ACTH-; ALDOSTERONE-; LUTEINIZING-HORMONE; FSH-;

RENIN-;

CORTISOL-; 11-DEOXYCORTISOL

RN: 51-48-9: THYROXINE; 6893-02-3: TRIIODOTHYRONINE; 9002-71-5Q: TSH; 83513-97

-7Q: TSH; 651-48-9: DEHYDROEPIANDROSTERONE SULFATE; 58-22-0: TESTOSTERONE;

9002-60-2: ACTH; 52-39-1: ALDOSTERONE; 9002-67-9: LUTEINIZING HORMONE;

9002-68-0: FSH; 9015-94-5: RENIN; 50-23-7: CORTISOL; 152-58-9: 11-DEOXYCORTISOL

MI: ACTH-; ALDOSTERONE-; C-REACTIVE-PROTEIN; CORTISOL-; DEHYDROEPIANDROSTERONE

-SULFATE; FSH-; HORMONAL-ABNORMALITIES; INTERLEUKIN-1BETA; INTERLEUKIN-6;

LUTEINIZING-HORMONE; OSTEOCALCIN-; POTENTIAL-ORGAN-DONATION;
RENIN-;
TESTOSTERONE-; THYROXINE-; TRIIODOTHYRONINE-; TSH-; TUMORNECROSIS-
FACTOR
-ALPHA; 11-DEOXYCORTISOL
AN: 199598332535

TI: Reversibility of severe brain stem dysfunction in children.

AU: Ammar-A {a}; Awada-A; Al-Luwami-I

AD: {a} Dep. Neurosurgery, King Fahd Hosp., P.O. Box 40040, Al Khobar, Saudi Arabia

SO: Acta-Neurochirurgica. 1993; 124 (2-4) 86-91.

PY: 1993

DT: Article-

IS: 0001-6268

LA: English

AB: The very popular concept of brain death can lead to a defeatist attitude when confronted by a patient with severe brain stem dysfunction. This problem is compounded by the constant controversy surrounding the establishing of criteria to determine brain death. Many young doctors tend to accept the precondition of irreversibility as being any condition that is not explicitly listed in the examples of potentially reversible conditions. In children, however, with compressive brain stem dysfunction, decompressive surgery can lead to a reversal of the dysfunction. In the last three years, we have had the opportunity to observe 5 children who were deeply comatose and apnoeic. All were suffering from compression of the brain stem and experienced dramatic return of brain stem function following emergency decompression. The implications of these findings on the therapeutic attitude towards compressive brain stem lesions in children are exposed. In children with severe brain stem dysfunction, and no evidence of brain stem destruction, decompressive surgery should be undertaken before a diagnosis of brain death is considered.

AI: Y

MC: Neurology- (Human-Medicine, Medical-Sciences); Pathology-; Pediatrics- (Human-Medicine, Medical-Sciences); Surgery- (Medical-Sciences)

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: Hominidae- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

MI: BRAIN-DEATH; CASE-STUDY; DECOMPRESSION-; DIAGNOSIS-; SURGERY-; THERAPYAN:

199497092802

Brain death in the newborn. Current perspectives.

AU: Author

Ashwal S

AF: Author Affiliation

Department of Pediatrics, Loma Linda University School of
Medicine, California, USA.

SO: Source

Clinics in perinatology, 1997 Dec, 24(4):859-82

IS: ISSN

0095-5108

AB: Abstract

Brain death can be diagnosed in the full-term newborn, even when less than 7 days of age. An observation period of 48 hours is recommended to confirm the diagnosis. If an EEG is isoelectric or if a CBF study shows no flow, the observation period can be shortened to 24 hours. Although there are few cases of preterm infants who are brain dead, it is likely that the same time frame would be applicable. Based on available data, the risk of misdiagnosis appears exceedingly low. There have been few instances of neonates or older infants who showed minimal transient clinical or EEG recovery but with no meaningful neurologic function and all died within brief periods of time.

LA: Language

English

PY: Publication Year

1997

PT: Publication Type

Journal Article; Review; Review Literature

CP: Country of Publication

UNITED STATES

DE: Descriptors

Blood Flow Velocity; Brain: metabolism; Brain Death: diagnosis;
Brain Death: metabolism; Brain Death: physiopathology;
Cerebrovascular Circulation; Human; Infant, Newborn; Magnetic
Resonance Spectroscopy; Neurologic Examination

FE: Features

81 references

LR: Last Revision Date

20001218

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Index Medicus

AN: Accession Number

9395867

TI: Brain death in early infancy.

AU: Ashwal-Stephen

AD: Div. Pediatr. Neurol., Loma Linda Univ. Med. Cent., 11234 Anderson St.,
Loma Linda, CA 92354, USA

SO: Journal-of-Heart-and-Lung-Transplantation. 1993; 12 (6 PART 2) S176-S178.

PY: 1993

DT: Article-

IS: 1053-2498

LA: English

AB: Guidelines for the determination of brain death in infants and children are now well established. Coma, absence of cranial nerve reflexes, and apnea are required in all patients. In children less than 1 year of age, supportive neurodiagnostic studies (electroencephalograms and cerebral blood flow) are recommended. Data on 52 pediatric heart donor patients were reviewed to assess whether current criteria and procedures were used in the determination of brain death. The mean age of the donors (14.3 months) was higher than that of the recipients (2.6 months). In all patients the hospital records documented coma, fixed dilated pupils, absent brain stem reflexes, apnea, and verification of the diagnosis of brain death by two physicians who were not part of the transplantation team. In 27 of 52 patients, apnea challenge tests were performed; the mean PCO-2 was 73.3 torr. Thirty-three of 52 patients had electroencephalograms performed; electrocerebral silence was found in 28 of 33 studies. Twenty-two of 52 patients had cerebral blood flow studies; in 19 of 22 studies the absence of flow was observed. Of the 52 patients the following number of organs were transplanted: heart (52), liver (34), kidneys (15), corneas (6), lung (4), and pancreas (2). These data indicate that the diagnosis of brain death is being made accurately and in a timely manner as is the harvesting of organs. Improvements could be made by requiring, if possible, the performance of an apnea challenge test in all patients. The data also suggest the potential to increase the donor yield.

AI: Y

MC: Blood-and-Lymphatics (Transport-and-Circulation); Cardiovascular-Medicine (Human-Medicine, Medical-Sciences); Development-; Endocrine-System (Chemical-Coordination-and-Homeostasis); Gastroenterology- (Human-Medicine, Medical-Sciences); Neurology- (Human-Medicine, Medical-Sciences); Pathology-; Pediatrics- (Human-Medicine, Medical-Sciences); Physiology-; Pulmonary-Medicine (Human-Medicine, Medical-Sciences); Sense-Organ (Sensory-Reception); Surgery- (Medical-Sciences); Urology- (Human-Medicine, Medical-Sciences)

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-
OR: human- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

CB: CARBON-DIOXIDE

RN: 124-38-9: CARBON DIOXIDE

MI: APNEA-; CARBON-DIOXIDE-PRESSURE; CEREBRAL-BLOOD-FLOW;
COMA-; CORNEA-;

CRANIAL-NERVE-REFLEX; ELECTROENCEPHALOGRAPHY-; HEART-;
KIDNEY-; LIVER-;

LUNG-; ORGAN-DONOR; PANCREASAN:
199497126659

Critical issues debates: intervention for infants with fatal heart disease, xenografting, and brain death criteria for anencephalic infants. Debate I. Resolved: a fetus or infant diagnosed with fatal heart disease should be referred for transplantation or palliative surgery.

AU: Author

Bailey LL; Norwood W; Allan LD

SO: Source

The Journal of heart and lung transplantation : the official publication of the International Society for Heart Transplantation, 1993 Nov-Dec, 12(6 pt. 2):S351-60

IS: ISSN

1053-2498

NT: Notes

22 refs.; KIE BoB Subject Heading: abortion; KIE BoB Subject Heading: allowing to die/infants; KIE BoB Subject Heading: organ and tissue transplantation; Moderator: Bill Press. [Kennedy Institute of Ethics (Georgetown University)]

RP: Report Number

KIE 48519; NRCBL special issue

LA: Language

English

PY: Publication Year

1993

PT: Publication Type

Journal Article

CP: Country of Publication

United States

DE: Descriptors

Abortion, Eugenic; Biomedical Technology; Child; Congenital, Hereditary, and Neonatal Diseases and Abnormalities; Cost-Benefit Analysis; Counseling; Decision Making; Euthanasia, Passive; Fetus; Health Care Rationing; Heart; Heart Diseases; Human Experimentation; Infant; Infant, Newborn; Mortality; Organ Transplantation; Parents; Patient Selection; Physicians; Prenatal Diagnosis; Prognosis; Public Policy; Quality of Life; Social Justice; Surgery; Treatment Outcome; Value of Life; Withholding Treatment

ID: Identifiers

Kennedy Institute of Ethics (Georgetown University): Alternatives; Clinical Approach/Source; Costs And Benefits; Death and Euthanasia; Genetics and Reproduction; Health Care and Public Health; Infants; Justice; Resource Allocation; Selection For 101

Treatment; Selective Abortion

LR: Last Revision Date

20011128

UD: Update

20020109

RO: Record Owner

Kennedy Institute of Ethics (Georgetown University)

SF: Subfile

BIOETHICSLINE

AN: Accession Number

11660029

TI: Your child is brain dead.

AU: Blair-Alastair-W; Steer-Christopher-R

AD: Victoria Hosp., Kirkcaldy, Fife KY2 5AH, UK

SO: Postgraduate-Medical-Journal. 1996; 72 (845) 137-140.

PY: 1996

DT: Article-

IS: 0032-5473

LA: English

AB: One to two per cent of admissions to Paediatric Intensive Care Units eventually fulfil the criteria for brain death, implying the need for very difficult decisions. Brain death is defined as irreversible loss of function of the whole brain. The diagnostic criteria caused a great deal of anxiety but are now the subject of a consensus approach. When the situation can be anticipated it is of immense value for the professional staff to develop a good working relationship with the parents to help and support them through the phase of impending disaster and facing the issue when the time actually comes. However, it is vital to help parents to make their own decision regarding continuation or otherwise of life support and they should be supported in whichever decision they take. They must be absolutely convinced that the child is brain dead and this territory may have to be covered again and again in discussion, questions must be answered factually, and time allowed for reflecti!

on. Stage management of the process of 'switching off' is vital and the parents' wishes may vary widely from one family to another. They must be warned what is likely to happen and provided with appropriate privacy and support for expression of their grief. The question of asking for postmortem permission has to be handled sensitively and long-term support for the parents must be offered. Education of undergraduate and postgraduate doctors in this area is now receiving more attention with skills being increased by video teaching and role play. It should not be overlooked that the professional staff attending such patients sometimes require counselling and support themselves.

AI: Y

MC: Neurology- (Human-Medicine, Medical-Sciences); Pathology-; Pediatrics- (Human-Medicine, Medical-Sciences); Public-Health (Allied-Medical-Sciences)

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: Hominidae- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

AN: 199698794872

TI: Altered apnea threshold in a child with suspected brain death.

AU: Brill-Richard-J; Bigos-David

AD: Div. Pediatr. Critical Care, Cooper Hosp., Univ. Med. Cent., Camden, NJ, USA

SO: Journal-of-Child-Neurology. 1995; 10 (3) 245-246.

PY: 1995

DT: Article-

IS: 0883-0738

LA: English

MC: Metabolism-; Neurology- (Human-Medicine, Medical-Sciences); Pediatrics- (Human-Medicine, Medical-Sciences); Pulmonary-Medicine (Human-Medicine, Medical-Sciences)

ST: Hominidae-; Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: Hominidae- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

MI: BRAINSTEM-AREFLEXIA; CASE-STUDY; CHRONIC-HYPERCARBIA;
NEUROLOGIC-DYSFUNCTION

AN: 199598410541

TI: Achievements and problems of perinatal medicine: Perinatal mortality and brain death in newborns.

AU: Barashnev-Yu-I

AD: Res. Cent. Obstet. Gynecol. Perinatol., Russ. Acad. Med. Sci., Moscow, Russia

SO: Rossiiskii-Vestnik-Perinatologii-i-Pediatrii. 1997; 42 (3) 14-19.

PY: 1997

DT: Case-Study; Research-Article

LA: Russian; Non-English

LS: Russian; English

AB: Foundation of regional perinatal centers helps to provide high-quality medical service for pregnant women and newborns of high risk group. During the last 10-12 years significant diminishing of perinatal (from 23.7 to 8 permill and neonatal (from 14.2 to 4 permill) mortality as been achieved, as well as incidence of intraventricular and periventricular hemorrhage In dead children. Unfortunately, It Is Impossible to elaborate reliable criteria of brain death using existing diagnostic methods. This impedes active prevention of disability of childhood after severe and Irreversible hypoxic and ischaemic brain damage.

AI: Y

MC: Blood-and-Lymphatics (Transport-and-Circulation); Nervous-System (Neural-Coordination); Pathology-; Pediatrics- (Human-Medicine, Medical-Sciences); Public-Health (Allied-Medical-Sciences); Reproductive-System (Reproduction-)

ST: Hominidae-; Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

MI: ADULT-; BLOOD-AND-LYMPHATIC-DISEASE; BRAIN-DAMAGE; BRAINDEATH;

DIAGNOSIS-; DISABILITY-; FEMALE-; HEMORRHAGE-; HIGHQUALITY-

MEDICAL-SERVICE; HYPOXIC-; INFANT-; INTRAVENTRICULAR-;

ISCHEMIC-; MALE-; MORTALITY-; NEONATAL-; NERVOUS-SYSTEMDISEASE;

NEUROLOGY-; NEWBORN-; PATIENT-; PEDIATRICS-; PERINATAL-;

PERIVENTRICULAR-; PREGNANCY-; REGIONAL-PERINATAL-CENTER

AN: 199799695821

TI: Apnea documentation for determination of brain death in Thai children.

AU: Chantarojanasiri-Teerachai; Preutthipan-Aroonwan

AD: Div. Pediatric Pulmonary, Critical Care, Dep. Pediatrics, Fac. Med.,
Ramathbodi Hosp., Mahidol University, Bangkok 10400, Thailand

SO: Journal-of-the-Medical-Association-of-Thailand. 1993; 76 (SUPPL. 2) 165-168.

PY: 1993

DT: Article-

IS: 0125-2208

LA: English

LS: English; Thai

MC: Biochemistry-and-Molecular-Biophysics; Metabolism-; Neurology- (Human
-Medicine, Medical-Sciences); Pediatrics- (Human-Medicine, Medical
-Sciences); Pulmonary-Medicine (Human-Medicine, Medical-Sciences)

ST: Hominidae-; Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

CB: OXYGENGE:

Thailand- (Asia-, Oriental-region)

RN: 7782-44-7: OXYGEN

MI: DIAGNOSIS-; OXYGEN-SATURATION

AN: 199598332418

Diagnosis of brain death in anencephalic infants: medicolegal and ethical aspects.

AU: Author

Cecchi R; Del Vecchio S

AF: Author Affiliation

Istituto di Medicina Legale e delle Assicurazioni, Universita degli Studi di Roma La Sapienza, Italy.

SO: Source

Medicine and law, 1995, 14(1-2):3-8

IS: ISSN

0723-1393

AB: Abstract

Medical science needs to regulate the transplantation of organs, including the adoption of new guidelines concerning the diagnosis of brain death in patients less than five years old. In fact in the case of anencephalic infants the specific criteria are not the same as those used in subjects with normal physical development. The authors indicate the international medical point of view on what constitutes the diagnosis of brain death in anencephalic infants and discuss medicolegal and ethical aspects.

LA: Language

English

PY: Publication Year

1995

PT: Publication Type

Journal Article

CP: Country of Publication

SOUTH AFRICA

DE: Descriptors

Anencephaly; Brain Death: diagnosis; Brain Death: legislation & jurisprudence; Child Advocacy: legislation & jurisprudence; Ethics, Medical; Human; Infant, Newborn; Italy; Organ Procurement: legislation & jurisprudence; Practice Guidelines

LR: Last Revision Date

20001218

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Index Medicus

AN: Accession Number

7666745

Imaging of brain death in neonates and young infants.

AU: Author

de Campo MP

AF: Author Affiliation

Department of Radiology, Royal Children's Hospital, Parkville,
Victoria, Australia.

SO: Source

Journal of paediatrics and child health, 1993 Aug, 29(4):255-8

IS: ISSN

1034-4810

LA: Language

English

PY: Publication Year

1993

PT: Publication Type

Journal Article; Review; Review, Tutorial

CP: Country of Publication

AUSTRALIA

DE: Descriptors

Angiography, Digital Subtraction; Blood Flow Velocity; Brain
Death: diagnosis; Brain Death: physiopathology; Cerebral
Angiography; Cerebrovascular Circulation; Echoencephalography;
Electroencephalography; Human; Infant; Infant, Newborn;
Radionuclide Angiography; Tomography, X-Ray Computed

FE: Features

33 references

LR: Last Revision Date

20001218

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Index Medicus

AN: Accession Number

8373667

TI: Brain death in the pediatric patient: Historical, sociological, medical, religious, cultural, legal, and ethical considerations.

AU: Farrell-Mary-M; Levin-Daniel-L

AD: Children's Med. Cent. Dallas, Parkland Meml. Hosp., Univ. Texas Southwestern Med. Cent., Dallas, TX, USA

SO: Critical-Care-Medicine. 1993; 21 (12) 1951-1965.

PY: 1993

DT: Article-

IS: 0090-3493

LA: English

AB: Objective: To detail the origins of the definition of death, the development of the criterion of whole brain death as fulfilling the definition of death, and the tests used to fulfill that criterion. Data Sources: A review of the literature was performed. No Institutional Review Board approval was necessary. Data Extraction: In 1959, patients were described as being in 'coma depasse' or beyond coma. In 1967, the first successful heart transplantation took place, with the organ coming from a brain-dead, beating-heart donor. However, anxiety over the definitions of death did not begin with the modern, technological era, and death itself has never been definable in objective terms. It has always been a subjective and value-based construct. During ancient times, most people agreed that death occurred when a person's heartbeat and breathing stopped. For the Greeks, the heart was the center of life; for the ancient Hebrews and Christians, the breath was the center of life. In the 12th century, Maimonides pointed toward the head, and the loss thereof, as the reason for lack of central guidance of the soul. Physicians neither diagnosed nor certified death. During the Enlightenment, the necessity of heartbeat, breath, and consciousness for the definition of life was questioned, leading to questioning regarding the definition of death. Tests to fulfill the criteria of death, and tests to determine the absence of integration between functions of respiration, circulation, and neurology were introduced. Sensorimotor potential was becoming recognized as defining life, rather than heartbeat and respiration. As new tests were devised to fulfill criteria of death, the physician developed a professional monopoly on meeting the criteria of brain death. In the modern era, the boundary between life and death has been blurred, but the intensive care unit straddles this boundary. We may have situations where the patient is alive but in a coma, without functioning heart, lungs, kidneys, or gastrointestinal tract, with a transplanted liver, a reversed coagulation system, a blocked immune system, and a paralyzed musculoskeletal system. Data Synthesis: A human being is a man, woman, or child who is a composite of two intricately related but conceptually distinguishable components: the biological entity and the person. Therefore, human beings can suffer more than one death: a biological death and decay, and another death. Biological death is a cessation of processes of biological synthesis and replication, and is an irreversible loss of integration of the biological units. The reasons for having criteria for death are to diagnose death and pronounce a person dead. Society can then begin to engage in grief, religious rites, funerals, and burials, and accept biological death. Wills can be read, property distributed, insurance claimed, individuals can remarry, succession can take place, and legal proceedings can begin. Also, organ donation can take place, which entails difficult ethical decisions. The Harvard criteria of 1968 were devised to set forth brain death criteria with whole brain death in mind. Currently, there are several controversies regarding these criteria: a) whether they apply to infants and children; b) whether ancillary tests are necessary; c) what the intervals of observation and testing are; and d) are there exceptions to the whole brain death criteria. Concerning the use of the adult criteria for infants and children, most researchers now agree that the adult criteria apply to infants and children who are full term and gt 7 days of age. Concerning ancillary tests, there has been, in our

machine and technology-oriented profession, a great deal of emphasis on the different tests and their ability to the criteria of whole brain death. However, clinical examination and the apnea test are usually sufficient to fulfill the criteria. Ancillary tests may be desired in some cases, and a variety of these tests is available. However, no test is absolutely accurate. There is also a controversy about both the intervals between clinical examinations and between certain tests. A variety of intervals for different ages, tests, and diagnoses has been recommended. However, none of these intervals is based on hard data. A diagnosis of death with no possibility of false diagnosis is very difficult.

Conclusions: Ethically, it is never allowable for someone to die so that another person may benefit from the use of their organs. Conversely, it is also wrong to maintain a brain-dead patient on a ventilator with no chance to benefit the patient. Veith states, "It confuses the person with the corpse." Kass reminds us, "What dies is the organism as a whole. It is this death, the death of the individual human being, that is important for physicians and for the community, not the 'death' of organs or cells, which are mere parts.

AI: Y

MC: Cardiovascular-System (Transport-and-Circulation); Epidemiology-(Population-Studies); Government-and-Law; History-; Human-Ecology (Anthropology-); Muscular-System (Movement-and-Support); Nervous-System (Neural-Coordination); Neurology- (Human-Medicine, Medical-Sciences); Pathology-; Pediatrics- (Human-Medicine, Medical-Sciences); Philosophy-and -Ethics; Physiology-; Respiratory-System (Respiration-)

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-
OR: human- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

MI: CIRCULATION-; COMA-; CONSCIOUSNESS-; ORGANTRANSPLANTATION;
RESPIRATION-;

SENSORIMOTOR-POTENTIAL

AN: 199497078349

TI: Difficulties of diagnosing brain death in pediatric resuscitation.

AU: Cuisset-J-M; Giroux-J-D {a}; Tea-S-H; Sizun-J; Mabin-D; Alix-D; De-Parscau-L

AD: {a} ReanimationPediatrique Neonatologie, CHU Morvan, 29609 Brest Cedex, France

SO: Urgences-Medicales. 1994; 13 (4) 172-173.

PY: 1994

DT: Literature-Review

LA: French; Non-English

LS: French; Non-English

MC: Biochemistry-and-Molecular-Biophysics; Cardiovascular-System (Transport-and-Circulation); Methods-and-Techniques; Morphology-; Nervous-System (Neural-Coordination); Neurology- (Human-Medicine, Medical-Sciences); Pathology-;

Pediatrics- (Human-Medicine, Medical-Sciences); Respiratory-System (Respiration-)

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-; Muridae-: Rodentia-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-); rat- (Muridae-)

TN: animals-; chordates-; humans-; mammals-; nonhuman-mammals; nonhumanvertebrates; primates-; rodents-; vertebrates-

MI: ARTERIOGRAPHY-; AUDITORY-EVOKED-POTENTIALS; CLINICALCRITERIA; COMA-; DIFFERENTIAL-DIAGNOSIS;

ELECTROENCEPHALOGRAM-; INFANT-; NEUROLOGICAL-FUNCTION;

ORGAN-REMOVAL; TRANSCRANIAL-DOPPLER-SONOGRAPHY

AN: 199598143744

Outcomes manager: brain death criteria in the pediatric patient.

AU: Author

Dorr P

AF: Author Affiliation

University of Maryland Medical System, USA.

SO: Source

Critical care nursing quarterly, 1997 May, 20(1):14-21

IS: ISSN

0887-9303

LA: Language

English

PY: Publication Year

1997

PT: Publication Type

Journal Article; Review; Review, Tutorial

CP: Country of Publication

UNITED STATES

DE: Descriptors

Brain Death: diagnosis; Brain Death: legislation & jurisprudence;

Case Report; Child; Ethics, Nursing; Human; Male; Organ

Procurement; Outcome Assessment (Health Care); Pediatric Nursing;

Practice Guidelines; United States

FE: Features

21 references

LR: Last Revision Date

20001218

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Nursing

AN: Accession Number

9165774

TI: Withdrawal and limitation of life support in paediatric intensive care.

AU: Goh-A-Y-T {a}; Lum-L-C-S; Chan-P-W-K; Bakar-F; Chong-B-O

AD: {a} Paediatric Intensive Care Unit, University Malaya Medical Centre, 50603, Kuala Lumpur, Malaysia

SO: Archives-of-Disease-in-Childhood. May, 1999; 80 (5): 424-428.

PY: 1999

DT: Article-

IS: 0003-9888

LA: English

LS: English

AB: Objectives-To compare the modes of death and factors leading to withdrawal or limitation of life support in a paediatric intensive care unit (PICU) in a developing country. Methods-Retrospective analysis of all children (< 12 years) dying in the PICU from January 1995 to December 1995 and January 1997 to June 1998 (n = 148). Results-The main mode of death was by limitation of treatment in 68 of 148 patients, failure of active treatment including cardiopulmonary resuscitation in 61, brain death in 12, and withdrawal of life support with removal of endotracheal tube in seven. There was no significant variation in the proportion of limitation of treatment, failure of active treatment, and brain death between the two periods; however, there was an increase in withdrawal of life support from 0% in 1995 to 8% in 1997-98. Justification for limitation was based predominantly on expectation of imminent death (71 of 75). Ethnic variability was noted among the 14 of 21 patients who refused withdrawal. Discussions for care restrictions were initiated almost exclusively by paediatricians (70 of 75). Diagnostic uncertainty (36% v 4.6%) and presentation as an acute illness were associated with the use of active treatment. Conclusions-Limitation of treatment is the most common mode of death in a developing country's PICU and active withdrawal is still not widely practised. Paediatricians in developing countries are becoming more proactive in managing death and dying but have to consider sociocultural and religious factors when making such decisions.

AI: Y

MC: Pediatrics- (Human-Medicine, Medical-Sciences)

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-): child-, patient-

TN: Animals-; Chordates-; Humans-; Mammals-; Primates-; Vertebrates-

GE: Malaysia- (Oriental-region)

MI: life-support-limitation; life-support-withdrawal; mortality-; pediatric-intensive-care; religious-factors; sociocultural-factors; treatment-limitation

AN: 199900195616

UD: 19990723

Validity of brain death criteria in infants.

AU: Author

Fishman MA

AF: Author Affiliation

Texas Children's Hospital, Neurology Service, Houston 77030, USA.

SO: Source

Pediatrics, 1995 Sep, 96(3 Pt 1):513-5

IS: ISSN

0031-4005

NT: Notes

Comment on: Pediatrics. 1995 Sep;96(3 Pt 1):518-20 [AN=7651788]

LA: Language

English

PY: Publication Year

1995

PT: Publication Type

Comment; Journal Article

CP: Country of Publication

UNITED STATES

DE: Descriptors

Electroencephalography; Female; Human; Infant; Infant, Newborn;

Pediatrics: standards; Respiration

LR: Last Revision Date

20011126

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Abridged Index Medicus; Index Medicus

AN: Accession Number

7651786

TI: Cerebral blood flow imaging in paediatrics: A review.

AU: Gordon-I

AD: Great Ormond St. Hosp. Child., London WC1N 3JH, UK

SO: Nuclear-Medicine-Communications. 1996; 17 (12) 1021-1029.

PY: 1996

DT: Literature-Review

IS: 0143-3636

LA: English

AB: The ability to study regional cerebral blood flow (rCBF) is available in many institutions, especially with the spread of multi-headed gamma cameras. The use of this technique in paediatrics requires special attention to detail in the manner of data acquisition and handling the child. The interpretation of the rCBF study in a child requires knowledge of normal brain maturation. The major clinical use in paediatrics is epilepsy because of the advances in surgery and the frequency of complex partial seizures. Other indications in paediatric neurology include brain death, acute neurological loss including stroke, language disorders, cerebral palsy, hypertension due to renovascular disease, traumatic brain injury and migraine. There are paediatric psychological conditions in which rCBF assessment has been undertaken, including anorexia nervosa, autism, Gilles de la Tourette Syndrome (GTS) and attention deficit disorder-hyperactivity (ADHD). This article attempts to review all aspects of rCBF studies in paediatrics.

AI: Y

MC: Nervous-System (Neural-Coordination); Pediatrics- (Human-Medicine, Medical-Sciences); Psychiatry- (Human-Medicine, Medical-Sciences); Radiation-Biology

ST: Hominidae-; Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

MI: ANOREXIA-NERVOSA; ATTENTION-DEFICIT-DISORDERHYPERACTIVITY;

AUTISM-;

BEHAVIORAL-AND-MENTAL-DISORDERS; BRAIN-DEATH; CEREBRALPALSYP;

CHILD-;

COMPLEX-PARTIAL-SEIZURES; EPILEPSY-; GILLES-DE-LA-TOURETTESYNDROME;

INJURY-; LANGUAGE-DISORDERS; MIGRAINE-; NERVOUS-SYSTEMDISEASE;

NEUROLOGY

-; NORMAL-BRAIN-MATURATION; PEDIATRICS-; RADIOLOGY-; REGIONALCEREBRAL

-BLOOD-FLOW; TRAUMATIC-BRAIN-INJURY; VASCULAR-DISEASE

AN: 199799382532

TI: Withdrawal and limitation of life support in paediatric intensive care.

AU: Goh-A-Y-T {a}; Lum-L-C-S; Chan-P-W-K; Bakar-F; Chong-B-O

AD: {a} Paediatric Intensive Care Unit, University Malaya Medical Centre, 50603, Kuala Lumpur, Malaysia

SO: Archives-of-Disease-in-Childhood. May, 1999; 80 (5): 424-428.

PY: 1999

DT: Article-

IS: 0003-9888

LA: English

LS: English

AB: Objectives-To compare the modes of death and factors leading to withdrawal or limitation of life support in a paediatric intensive care unit (PICU) in a developing country. Methods-Retrospective analysis of all children (< 12 years) dying in the PICU from January 1995 to December 1995 and January 1997 to June 1998 (n = 148). Results-The main mode of death was by limitation of treatment in 68 of 148 patients, failure of active treatment including cardiopulmonary resuscitation in 61, brain death in 12, and withdrawal of life support with removal of endotracheal tube in seven. There was no significant variation in the proportion of limitation of treatment, failure of active treatment, and brain death between the two periods; however, there was an increase in withdrawal of life support from 0% in 1995 to 8% in 1997-98. Justification for limitation was based predominantly on expectation of imminent death (71 of 75). Ethnic variability was noted among the 14 of 21 patients who ! refused withdrawal. Discussions for care restrictions were initiated almost exclusively by paediatricians (70 of 75). Diagnostic uncertainty (36% v 4.6%) and presentation as an acute illness were associated with the use of active treatment. Conclusions-Limitation of treatment is the most common mode of death in a developing country's PICU and active withdrawal is still not widely practised. Paediatricians in developing countries are becoming more proactive in managing death and dying but have to consider sociocultural and religious factors when making such decisions.

AI: Y

MC: Pediatrics- (Human-Medicine, Medical-Sciences)

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-): child-, patient-

TN: Animals-; Chordates-; Humans-; Mammals-; Primates-; Vertebrates-

GE: Malaysia- (Oriental-region)

MI: life-support-limitation; life-support-withdrawal; mortality-; pediatric-intensive-care; religious-factors; sociocultural-factors; treatment-limitation

AN: 199900195616

UD: 19990723

TI: Autonomic control of heart rate after brain injury in children.

AU: Goldstein-Brahm {a}; Kempinski-Mark-H; Deking-Donna {a}; Cox-Christopher; Delong-David-J; Kelly-Mary-M {a}; Woolf-Paul-D
AD: {a} Dep. Pediatrics, Univ. Rochester Sch. Med. Dentistry, Strong Children's Critical Care Cent., Rochester, NY
SO: Critical-Care-Medicine. 1996; 24 (2) 234-240.
PY: 1996

DT: Article-
IS: 0090-3493
LA: English

AB: Objectives: To study sequential changes in heart rate, respiratory rate, blood pressure, heart rate power spectra, and plasma catecholamine concentrations in patients with acute brain injury and correlate these variables with the severity of neurologic dysfunction and patient outcome.

Design: Prospective, clinical study. Setting: Pediatric intensive care unit. Patients: Thirty-seven pediatric patients with acute brain injury caused by trauma, anoxia/ischemia, hemorrhage, or infection.

Interventions: None. Measurements and Main Results: We found significant associations between low-frequency (0.01 to 0.15 Hz) heart rate power and severity of neurologic dysfunction (as assessed by the admission Glasgow Coma Scale) ($p < .001$) and patient outcome (as assessed by the Glasgow Outcome Scale) ($p = .05$). The admission ($p = .05$) and maximum ($p < .001$) values for low-frequency heart rate power and the minimum value for high-frequency (0.15 to 0.50 Hz) heart rate power obtained during hospitalization ($p = .001$) predicted an increased likelihood of survival.

Ten brain-dead patients had significantly decreased low-frequency heart rate power ($p = .008$) and plasma norepinephrine ($p = .015$), epinephrine ($p = .03$), and dopamine ($p = .04$) concentrations when compared with six non-brain-dead patients with a Glasgow Coma Scale score of 3. Conclusions:

Our results imply that autonomic nervous system control of heart rate is disrupted in proportion to the degree of neurologic insult in children after acute brain injury. Thus, heart rate power spectral analysis and plasma catecholamine concentrations may prove to be useful adjuncts in determining severity of neurologic injury and prognosis for recovery in children suffering from brain injury. In addition, these techniques may aid in the determination of brain death.

AI: Y

MC: Biochemistry-and-Molecular-Biophysics; Cardiovascular-System (Transport-and-Circulation); Endocrine-System (Chemical-Coordination-and-Homeostasis); Nervous-System (Neural-Coordination); Neurology- (Human-Medicine, Medical-Sciences); Pathology-; Pediatrics- (Human-Medicine, Medical-Sciences)

ST: Hominidae-; Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: Hominidae- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

CB: NOREPINEPHRINE-; EPINEPHRINE-; DOPAMINE-

51-41-2: NOREPINEPHRINE; 51-43-4: EPINEPHRINE; 51-61-6: DOPAMINE

MI: BRAIN-DEATH; DOPAMINE-; EPINEPHRINE-; GLASGOW-COMA-SCALE; NEUROLOGIC

-INJURY; NOREPINEPHRINEAN:

199698731551

Critical issues debates: intervention for infants with fatal heart disease, xenografting, and brain death criteria for anencephalic infants. Debate III. Resolved: brain death criteria must be revised so that society can readily benefit from families who offer their anencephalic infants as organ donors.

AU: Author

Girvin J; Capron AM

SO: Source

The Journal of heart and lung transplantation : the official publication of the International Society for Heart Transplantation, 1993 Nov-Dec, 12(6 pt.2):S369-78

IS: ISSN

1053-2498

NT: Notes

37 refs.; KIE BoB Subject Heading: determination of death/brain death; KIE BoB Subject Heading: organ and tissue donation;

Moderator: Bill Press. [Kennedy Institute of Ethics (Georgetown University)]

RP: Report Number

KIE 48534; NRCBL special issue

LA: Language

English

PY: Publication Year

1993

PT: Publication Type

Journal Article

CP: Country of Publication

United States

DE: Descriptors

Anencephaly; Brain; Brain Death; Coercion; Death; Diagnosis;

Ethics; Euthanasia, Passive; Health Care Rationing; Heart;

Homicide; Individuality; Infant, Newborn; Life Support Care; Organ

Procurement; Persistent Vegetative State; Personhood; Public

Policy; Reference Standards; Third-Party Consent; Tissue Donors;

United States

ID: Identifiers

Kennedy Institute of Ethics (Georgetown University): Analytical

Approach; Clinical Approach/Source; Death and Euthanasia;

Determination Of Death; Health Care and Public Health; Killing;

Moral Policy; Organ Donation; Parental Consent; Resource

Allocation; Standards; United States; Wedge Argument

LR: Last Revision Date

20011128

UD: Update

20020109

RO: Record Owner

Kennedy Institute of Ethics (Georgetown University)

SF: Subfile

BIOETHICSLINE

AN: Accession Number

11660030

Critical issues debates: intervention for infants with fatal heart disease, xenografting, and brain death criteria for anencephalic infants. Debate II. Resolved: medical scientists must vigorously develop xenografting as a viable clinical alternative.

AU: Author

Hammer CR; Annas GJ

SO: Source

The Journal of heart and lung transplantation : the official publication of the International Society for Heart Transplantation, 1993 Nov-Dec, 12(6 pt.2):S360-9

IS: ISSN

1053-2498

NT: Notes

42 refs.; KIE BoB Subject Heading: organ and tissue transplantation; Moderator: Bill Press. [Kennedy Institute of Ethics (Georgetown University)]

RP: Report Number

KIE 48536; NRCBL special issue

LA: Language

English

PY: Publication Year

1993

PT: Publication Type

Journal Article

CP: Country of Publication

United States

DE: Descriptors

Animal; Animal Rights; Animals, Genetically Modified; Human Experimentation; Informed Consent; Organ Transplantation; Primates; Research; Risk; Swine; Treatment Outcome; United States

ID: Identifiers

Kennedy Institute of Ethics (Georgetown University): Animal Organs; Biomedical Research; Body Parts And Fluids; Clinical Approach/Source; Health Care and Public Health; Research Subjects; Risks And Benefits; Scarcity; United States

LR: Last Revision Date

20011128

UD: Update

20020109

RO: Record Owner

Kennedy Institute of Ethics (Georgetown University)

SF: Subfile

BIOETHICSLINE

103

AN: Accession Number

11653148

Carotid blood-flow velocity changes detected by Doppler ultrasound in determination of brain death in children. A preliminary report.

AU: Author

Jalili M; Crade M; Davis AL

AF: Author Affiliation

Department of Pediatrics, Memorial Miller Children's Hospital,
University of California, Irvine, Long Beach 90801-1428.

SO: Source

Clinical pediatrics, 1994 Nov, 33(11):669-74

IS: ISSN

0009-9228

AB: Abstract

To investigate the value of Doppler ultrasonography of the carotid arteries as a diagnostic test for the determination of brain death in children, we enrolled 17 patients in a blinded fashion in the pediatric intensive care unit of Memorial Miller Children's Hospital of Long Beach between the period of December 1990 and October 1992. After institutional review board approval and parental consent, children who sustained severe brain injury underwent Doppler ultrasonography study of their carotid arteries. Seven of 17 patients were diagnosed as having brain death by clinical criteria (complete loss of cerebral and brainstem functions) and electroencephalogram (EEG). Five of seven (71%) patients with the diagnosis of brain death had bilateral reverse flow (characteristic of increased cerebrovascular resistance and absent cerebral circulation) on their Doppler ultrasonography, yielding a specificity of 100% and sensitivity of 71.4% ($P = 0.01$). All surviving patients (five) and the five who did not fulfill the brain-death criteria at the time of Doppler ultrasonography and were later taken off life supportive measures had normal Doppler findings. These data indicate that Doppler ultrasonography of the carotid arteries is a very specific test and can be used as an adjunctive modality for determination of brain death in children.

LA: Language

English

PY: Publication Year

1994

PT: Publication Type

Clinical Trial; Journal Article

CP: Country of Publication

UNITED STATES

DE: Descriptors

96

Blood Flow Velocity; Brain Death: diagnosis; Brain Death: physiopathology; Carotid Arteries: physiopathology; Carotid Arteries: ultrasonography; Child, Preschool; Double-Blind Method; Electroencephalography; Female; Human; Infant; Male; Prospective Studies; Sensitivity and Specificity; Support, Non-U.S. Gov't; Ultrasonography, Doppler; Ultrasonography, Interventional

LR: Last Revision Date

20001218

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Abridged Index Medicus; Index Medicus

AN: Accession Number

7859426

Fetal brain death syndrome--a case report and literature review.

AU: Author

James SJ

AF: Author Affiliation

Department of Obstetrics and Gynaecology, John Hunter Hospital,
New South Wales.

SO: Source

The Australian & New Zealand journal of obstetrics & gynaecology,
1998 May, 38(2):217-20

IS: ISSN

0004-8666

AB: Abstract

This case describes a new feature of fetal brain death syndrome, abnormal movements mimicking fetal convulsions being subsequently found to be decerebrate hypertonicity in a brain-dead fetus. It also confirms the diagnostic criteria of fetal brain death, both clinical and ultrasonic. The development of polyhydramnios both prior to and after the presumed neurological event is suggested as an association with the diagnosis of fetal brain death. Increased awareness of this event and the heterogeneity of the presentation may prevent further unnecessary Caesarean sections, as to date only 4 of the 10 cases in the literature were diagnosed prenatally. Utilization of techniques such as fetal blood sampling should be considered to further delineate the diagnosis.

LA: Language

English

PY: Publication Year

1998

PT: Publication Type

Journal Article; Review; Review, Tutorial

CP: Country of Publication

AUSTRALIA

DE: Descriptors

Adult; Brain: physiopathology; Brain Death: diagnosis; Brain Death: physiopathology; Cardiotocography; Cesarean Section; Convulsions: diagnosis; Convulsions: physiopathology; Decerebrate State: diagnosis; Decerebrate State: physiopathology; Electroencephalography; Female; Fetal Death: diagnosis; Fetal Death: physiopathology; Fetal Movement: physiology; Human; Infant, Newborn; Polyhydramnios: diagnosis; Polyhydramnios: physiopathology; Pregnancy; Pregnancy Trimester, Third

FE: Features

16 references

LR: Last Revision Date

20001218

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Index Medicus

AN: Accession Number

9653866

Use of P-31 MR spectroscopy in the assessment of brain death in children

AU: Authors

Kato, T; Umeda, M; Kitazawa, S; Nose, K; Kobayashi, N; Mikami, I

CS: Conference Sponsor

Radiological Society of North America; American Association of Physicists in Medicine

CF: Conference

75th Anniversary Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, IL (USA), 26 Nov - 1 Dec 89. (World Meeting Number 894 0396)

NT: Notes

Availability: RSNA, 1415 West 22nd Street, Tower B, Oak Brook, IL 60521, USA., Title: Radiology (1989). ISSN: 0033-8919. Price:

\$12.00. Poster Paper

SF: Subfile Name

CPI, Conference Papers Index

CL: Classification Code

U 3500 CLINICAL MEDICINE; U 8000 PHYSICS AND ASTRONOMY

AN: Accession Number

2146358

A1: Alert Info

20001231

Vasopressin pressor effects in critically ill children during evaluation for brain death and organ recovery.

AU: Author

Katz K; Lawler J; Wax J; O'Connor R; Nadkarni V

AF: Author Affiliation

Departments of Emergency Medicine/Internal Medicine, Christiana Care Health Systems, 4755 Ogletown-Stanton Road, Newark, DE, 19718, USA.

SO: Source

Resuscitation, 2000 Sep, 47(1):33-40

IS: ISSN

0300-9572

AB: Abstract

BACKGROUND: Vasopressin (VP) shows promise as a pressor agent in animals and adult human cardiac arrest and resuscitation, but has not been studied for pressor effect in critically ill or arrested children. VP infusion is routine treatment for diabetes insipidus during brain death evaluation and organ recovery. We hypothesized that low dose VP infusion during organ recovery in critically ill children exerts a pressor effect, without major organ toxicity.

METHODS: 34 VP-treated and 29 age-matched critically ill controls (C) < or =18 years were retrospectively reviewed during brain death evaluation and organ recovery. VP infusion protocol titrated VP dose clinically to urine output, with high variability. Pressor and inotrope management was titrated clinically to BP, cerebral perfusion and central venous pressures (when available) and peripheral perfusion with similar protocol targets for pre-load in VP and C groups. Outcome measures include dose, type and number of pressors and inotropes. Organ function was assessed at recovery and 48 h post-transplant by independent surgeon and transplant program organ function criteria. Analysis by Odds Ratio (OR), and chi-square. **RESULTS:** VP dose averaged 0.041+/-0.069 U/kg/h. Average baseline mean arterial pressure (MAP) before VP infusion was 79+/-17 mmHg VP and 76+/-14 mm Hg C (P=0.6). Subsequent average MAP were: 82+/-21 mmHgVP after VP infusion versus 71+/-16 mmHg C (P=0.01) and 80+/-14 mmHg VP versus 68+/-22 mmHg C (P=0.01). Ability to wean/stop pressors and inotropes was: dopamine (14/23) 42% VP versus (10/26) 38% C (P=0.75), dobutamine (4/7) 57% VP versus (0/6) 0% C (P=0.026), epinephrine (4/5) 80% VP versus (0/6) 0% C (P=0.006), norepinephrine/phenylephrine (4/4) 100% VP versus (2/5) 40% C (P=0.057). Alpha agonist pressor dependence was successfully weaned from 7/9 (78%) VP versus 0/9 (0%) C: odds ratio=7.3, (P<0.01). There was no VP induced dysrhythmia, hypertension, anuria or toxicity reported. Good organ recovery function was not significantly different at recovery or 48 h post-transplant for kidney (79% VP versus 69% C, P=0.068), liver (87% VP versus 95% C, P=0.533), or heart (90% VP versus 71% C, P=0.11). **CONCLUSIONS:** Low dose vasopressin infusion exerts a pressor effect in critically ill children treated for diabetes insipidus during brain death and organ recovery. VP treated patients were 7.3 times more likely to wean from alpha agonists than comparably managed age matched controls, without adverse affect on transplant organ function. We speculate that further prospective assessment of VP safety and efficacy as a pressor adjunct for resuscitation of critically ill children is warranted.

LA: Language

English

PY: Publication Year

2000

PT: Publication Type

Journal Article

CP: Country of Publication
IRELAND
DE: Descriptors
Adolescence; Blood Pressure: drug effects; Brain Death: diagnosis;
Cardiotonic Agents: therapeutic use; Case-Control Studies; Child;
Child, Preschool; Critical Illness: therapy; Dopamine: therapeutic
use; Female; Human; Male; Recovery of Function; Retrospective
Studies; Thyroxine: therapeutic use; Tissue Donors; Tissue
Harvesting; Tissue Survival: drug effects; Vasoconstrictor Agents:
therapeutic use; Vasopressins: therapeutic use
RN: CAS Registry Number
0 (Cardiotonic Agents); 0 (Vasoconstrictor Agents); 11000-17-2
(Vasopressins); 51-61-6 (Dopamine); 7488-70-2 (Thyroxine)
UD: Update
20020109
RO: Record Owner
National Library of Medicine
SF: Subfile
Index Medicus
AN: Accession Number
11004379

Brain death in neonates.

AU: Author
Kohrman MH
AF: Author Affiliation
State University of New York, School of Medicine and Biomedical
Sciences, Buffalo.
SO: Source
Seminars in neurology, 1993 Mar, 13(1):116-22
IS: ISSN
0271-8235
LA: Language
English
PY: Publication Year
1993
PT: Publication Type
Journal Article; Review; Review, Tutorial
CP: Country of Publication
UNITED STATES
DE: Descriptors
Brain Death: pathology; Human; Infant, Newborn
FE: Features
41 references
LR: Last Revision Date
20001218
UD: Update
20020109
RO: Record Owner
National Library of Medicine
SF: Subfile
Index Medicus
AN: Accession Number
8511413

TI: Apnea testing by artificial CO-2 augmentation.

AU: Lang-Christoph-J-G

AD: Outpatient Dep., Neurological Hosp., Univ. Erlangen-Nuremberg,
Schwabachanlage 6, D-91054 Erlangen, Germany

SO: Neurology-. 1995; 45 (5) 966-969.

PY: 1995

DT: Article-

IS: 0028-3878

LA: English

AB: We used artificial augmentation of CO-2 at a rate of 1 l/min after preoxygenation with 100% O-2 to test for apnea in 34 patients with suspected brain death. Observation time was markedly reduced compared with conventional apneic oxygenation, allowing PaCO-2 levels \geq 60 mm Hg to be reached within 2 minutes. Properly administered, CO-2-supported apnea testing is quick, requires only simple technical equipment, and does not unduly lower PaO-2 or pH. It seems to be a useful alternative in cases where reduction of ventilatory volume is not wanted.

AI: Y

MC: Nervous-System (Neural-Coordination); Neurology- (Human-Medicine, Medical -Sciences); Pathology-; Pulmonary-Medicine (Human-Medicine, Medical -Sciences); Respiratory-System (Respiration-)

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

CB: CARBON-DIOXIDE

RN: 124-38-9: CARBON DIOXIDE

MI: ANALYTICAL-METHOD; BRAIN-DEATH; CARBON-DIOXIDE

AN: 199598332199

Brain death in the pediatric patient: historical, sociological, medical, religious, cultural, legal, and ethical considerations.

AU: Author

Levin DL; Farrell MM; Staworn D; Lewison LJ; Morriss FC; Turner GR; Toro-Figueroa LO; Brink LW

AF: Author Affiliation

Department of Pediatrics, University of Texas Southwestern Medical Center, Dallas.

SO: Source

Critical care medicine, 1993 Sep, 21(9 Suppl):S337-9

IS: ISSN

0090-3493

LA: Language

English

PY: Publication Year

1993

PT: Publication Type

Historical Article; Journal Article

CP: Country of Publication

UNITED STATES

DE: Descriptors

Brain Death: diagnosis; Brain Death: legislation & jurisprudence; Child; Cultural Characteristics; Ethics, Medical; Female; History of Medicine, 20th Cent.; History of Medicine, Ancient; History of Medicine, Medieval; Human; Intensive Care: history; Male; Organ Procurement; Pediatrics: history; Religion and Medicine; Sociology, Medical

LR: Last Revision Date

20011113

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Abridged Index Medicus; Index Medicus; HISTLINE

AN: Accession Number

8365216

Brain-death criteria currently used by pediatric intensivists.

AU: Author

Lynch J; Eldadah MK

AF: Author Affiliation

Marshall University School of Medicine, Pediatric Department,
Huntington, West Virginia.

SO: Source

Clinical pediatrics, 1992 Aug, 31(8):457-60

IS: ISSN

0009-9228

AB: Abstract

A survey was done to identify how pediatric intensivists determine brain death in children. Forty-nine pediatric intensive-care units (PICUs) were surveyed. The questionnaire explored the following areas: 1) clinical and confirmatory studies performed, 2) types of physicians involved, and 3) reevaluation intervals. Thirty-four centers responded to the questionnaire. Sixty-nine percent were children's hospitals, and 94% were university affiliates. The mean number of PICU beds was 17, with a mean admission rate of 890 patients per year, and the mean mortality rate for these units was 6%. There was general agreement on the sufficiency of clinical examination to determine cortical and brain-stem function. All the pediatric intensivists noted that a positive apnea test, absent cephalic reflexes, fixed and dilated pupils, and no motor response to pain were reliable signs of brain death. Radionuclide cerebral-flow scan and EEG were the confirmatory tests routinely used. Most physicians (77%) felt a second clinical examination was required within 12 to 24 hours. The opinion of more than one physician, one of whom was a neurospecialist, was required in 80% of the surveyed institutions.

LA: Language

English

PY: Publication Year

1992

PT: Publication Type

Journal Article

CP: Country of Publication

UNITED STATES

DE: Descriptors

Blood Flow Velocity; Brain Death: diagnosis; Brain Death: radionuclide imaging; Canada; Causality; Cerebrovascular Circulation; Child; Clinical Protocols: standards; Critical Care: methods; Critical Care: standards; Electroencephalography; Hospital Bed Capacity; Hospital Mortality; Hospitals, Pediatric; Hospitals, University; Human; Intensive Care Units, Pediatric: statistics & numerical data; Neurologic Examination; Patient Admission: statistics & numerical data; Pediatrics: methods; Pediatrics: standards; Physician's Practice Patterns: standards; Questionnaires; Referral and Consultation; United States

LR: Last Revision Date

20001218

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Abridged Index Medicus; Index Medicus

AN: Accession Number

1643762

Brain death determination practices in children.

AU: Author

Lynch JA

SO: Source

JAMA : the journal of the American Medical Association, 1995 Dec
13, 274(22):1761-2

IS: ISSN

0098-7484

NT: Notes

Comment on: JAMA. 1995 Aug 16;274(7):550-3 [AN=7629983]

LA: Language

English

PY: Publication Year

1995

PT: Publication Type

Comment; Letter

CP: Country of Publication

UNITED STATES

DE: Descriptors

Child; Guidelines; Human; Intensive Care Units, Pediatric;

Professional Practice: standards

LR: Last Revision Date

20011126

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Abridged Index Medicus; Index Medicus

AN: Accession Number

7500503

TI: No resuscitation orders and withdrawal of therapy in French paediatric intensive care units.

AU: Martinot-A; Grandbastien-B; Leteurtre-S; Duhamel-A; Leclerc-F {a};
Pediatriques-Group-Fancophone-De-Reanimation-Et-D'-Urgences

AD: {a} Serv. Reanim. Pediatr., Hop. Jeanne Flandre, 2 Place O. Lambret, Lille
59037 Cedex, France

SO: Acta-Paediatrica. July, 1998; 87 (7) 769-773.

PY: 1998

DT: Article-

IS: 0803-5253

LA: English

AB: Objective: To determine the incidence of different modes of death in French paediatric intensive care units and to compare patients' characteristics, including a severity of illness score (Paediatric Risk of Mortality: PRISM score) and prior health status (Paediatric Overall Performance Category scale), according to the mode of death. Design: A 4-month prospective cohort study. Setting: Nine French multidisciplinary paediatric intensive care units. Patients: All patients who died in PICUs, except premature babies. Main results: Among 712 admissions, 13% patients died. Brain death was declared in 20%, failure of cardiopulmonary resuscitation occurred in 26%, do-not-resuscitate status was identified in 27%, and withdrawal of supportive therapy was noted in 27%. The PRISM score and the baseline Paediatric Overall Performance Category were not different between the four groups. Brain-dead patients were older than those in whom a do-not-resuscitate order and withdrawal of therapy were made (median age 81 vs 7 and 4 months). Conclusions: Decisions to limit or to withdraw supportive care were made for a majority of patients dying in French paediatric intensive care units. Chronic health evaluation and severity of illness index are not sufficient to describe dead-patient populations.

AI: Y

MC: Pediatrics- (Human-Medicine, Medical-Sciences); Public-Health (Allied
-Medical-Sciences)

GE: France- (Europe-, Palearctic-region)

MI: illness-severity; mode-of-death; no-resuscitation-orders; pediatric
-intensive-care-unit; prior-health-status; support-limitation; withdrawal
-of-therapy

AN: 199800410178

UD: 19980803

TI: Dissociation of cerebral blood flow, glucose metabolism, and electrical activity in pediatric brain death: Case report.

AU: Medlock-Michael-D {a}; Hanigan-William-C; Cruse-Robert-P

AD: {a} Dep. Neuroscience, Univ. Ill. Coll. Med., P.O. Box 1649, Peoria, IL 61656, USA

SO: Journal-of-Neurosurgery. 1993; 79 (5) 752-755.

PY: 1993

DT: Article-

IS: 0022-3085

LA: English

AB: A 2-month-old infant demonstrated clinical brain death 48 hours after suffering a closed head injury accompanied by cardiac arrest. Two nuclear cerebral blood flow (CBF) studies demonstrated normal perfusion. On the 11th day following injury, cerebral electrical activity ceased and a normal glucose metabolic gradient between gray and white matter was documented on positron emission tomography. Autopsy revealed widespread necrosis with mononuclear cell infiltrates throughout all cerebral cortical layers. Nine children have previously been described with clinical brain death, electrocerebral silence, and evidence of CBF by radionuclide scan. The dissociation between cerebral electrical activity and blood flow may be explained by an increase in cranial volume allowed by the expansile neonatal skull, preventing both intracranial hypertension and a reduction in perfusion pressure. The persistence of glucose metabolism may be associated with the presence of inflammatory microglial cells in the ischemic cortex. The authors conclude that persistence of CBF and glucose metabolism in brain-dead children may not indicate neuronal survival. If repeated neurological examinations with or without electroencephalography support the diagnosis of brain death, the presence of CBF and glucose metabolism should not alter this conclusion.

AI: Y

MC: Cardiovascular-Medicine (Human-Medicine, Medical-Sciences); Cardiovascular-System (Transport-and-Circulation); Metabolism-; Nervous-System (Neural-Coordination); Neurology- (Human-Medicine, Medical-Sciences); Pathology-; Pediatrics- (Human-Medicine, Medical-Sciences); Physiology-

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: Hominidae- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

CB: GLUCOSERN:

50-99-7: GLUCOSE

MI: CARDIAC-ARREST; CASE-STUDY; CEREBROSPINAL-FLUID; CLOSEDHEAD-INJURY; HUMAN

-INFANT; INFLAMMATORY-MICROGLIAL-CELL; POSITRON-EMISSION-TOMOGRAPHY

AN: 199497034608

TI: Variability in brain death determination practices in children.

AU: Mejia-Rodrigo-E; Pollack-Murray-M {a}

AD: {a} Dep. Critical Care Med., Children's Natl. Med. Cent., 111 Michigan Ave. NW, Washington, DC 20010, USA

SO: JAMA-Journal-of-the-American-Medical-Association. 1995; 274 (7) 550-553.

PY: 1995

DT: Article-

IS: 0098-7484

LA: English

AB: Objective: To investigate variability in practices for determining brain death and organ procurement results in pediatric intensive care units (PICUs). Design: Prospective cohort study. Setting: Pediatric ICU. Patients: Children undergoing brain death evaluations selected from 5415 consecutive PICU admissions. Main Outcome Measures: Data from children undergoing brain death evaluations including number of coma examinations, number and duration of apnea tests, PCO-2 measurements at the end of the apnea test, ancillary tests used to confirm brain death, organ procurement, and reasons for nonprocurement. Results: A total of 93 (37%) of 248 deaths were brain deaths. Compared with the other deaths, children who were classified as brain dead were sicker on admission (mean Pediatric Risk of Mortality (PRISM) score - SD: 31 +- 11 vs 23 +- 12, P lt .001; pre-ICU cardiopulmonary resuscitation: 72% vs 40%, P lt .001), and had more traumatic injuries (42% vs 12%, P lt .001). Variability in apnea testing included lack of apnea testing in 23 patients (25%) and controversial apnea testing practices in 20 patients (22%). Three patients (3%) had brain death evaluations within hours of discontinuing barbiturate infusions, and four of 30 patients younger than 1 year did not have a confirmatory test. Solid organ procurement was successful in 32%. Reasons for nonprocurement included parental refusal (12%), disease state (12%), and medical examinees case (22%). Conclusions: Substantial variability exists in the criteria used by clinicians for the diagnosis of brain death. Some practices are contradictory to the Guidelines for the Determination of Brain Death in Children and to recommendations for apnea testing. Organ procurement could be improved by increased medical examiner cooperation.

AI: Y

MC: Government-and-Law; Neurology- (Human-Medicine, Medical-Sciences); Pathology-; Pediatrics- (Human-Medicine, Medical-Sciences); Public-Health (Allied-Medical-Sciences)

ST: Hominidae-; Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: Hominidae- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

GE: USA- (North-America, Nearctic-region)

MI: DIAGNOSIS-; LEGISLATION-; PEDIATRIC-INTENSIVE-CARE-UNIT

AN: 199598430920

Rectal-scalp temperature difference predicts brain death in children.

AU: Author

Miller G; Stein F; Trevino R; David Y; Contant CF; Jefferson LS

AF: Author Affiliation

Department of Pediatrics, Baylor College of Medicine, Texas

Children's Hospital, Houston 77030, USA.

SO: Source

Pediatric neurology, 1999 Apr, 20(4):267-9

IS: ISSN

0887-8994

AB: Abstract

When brain death in children occurs, commonly the scalp feels cold despite a normal core temperature. This phenomenon might reflect absent cerebral blood flow and metabolic activity. The authors, therefore, measured rectal-scalp temperature differences in critically ill comatose children to test the hypothesis that a particular temperature difference may correlate with clinical brain death. In a prospective cohort study set in a pediatric intensive care unit, rectal-scalp, rectal-abdomen, and rectal-mastoid temperatures in critically ill comatose children older than 18 months of age were measured before and during brain death evaluations. Twelve children were enrolled. Clinical criteria for brain death were met by seven patients, and five patients survived. All of the seven children who died had rectal-scalp temperature differences greater than 4 degrees C (mean = 6.7, range = 6.0-7.4) at the time of clinical brain death. No survivor had a rectal-scalp temperature difference of 4 degrees C at any time (mean = 3.4, range = 2.9-3.9). Rectal-scalp temperature differences of those who died and those who survived were significantly different at the $P < 0.005$ level.

Rectal-abdomen and rectal-mastoid temperature differences did not correlate with clinical brain death or rectal-scalp temperature difference. In this preliminary study a rectal-scalp temperature difference of greater than 4 degrees C correlates with clinical criteria for brain death in children.

LA: Language

English

PY: Publication Year

1999

PT: Publication Type

Clinical Trial; Controlled Clinical Trial; Journal Article

CP: Country of Publication

UNITED STATES

DE: Descriptors

Biological Markers; Body Temperature: physiology; Body Temperature Regulation; Brain Death: diagnosis; Child; Child, Preschool; Coma: mortality; Coma: physiopathology; Comparative Study; Female; Human; Infant; Male; Prognosis; Prospective Studies; Rectum; Scalp; Severity of Illness Index; Survival Rate

RN: CAS Registry Number

0 (Biological Markers)

LR: Last Revision Date

20001218

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Index Medicus

AN: Accession Number

Pediatric Abstracts

Paediatric brain death in Japan.

AU: Author

Miyasaka K; Takeuchi K; Takeshita H

SO: Source

Lancet, 2001 May 19, 357(9268):1625

IS: ISSN

0140-6736

NT: Notes

Comment on: Lancet. 1998 Dec 5;352(9143):1837 [AN=9851398]

NT: Notes

5 refs.; KIE Bib: determination of death/brain death; Miyasaka, Katsuyuki; Takeuchi, Kazuo; Takeshita, Hiroshi [Kennedy Institute of Ethics (Georgetown University)]

RP: Report Number

KIE 102830

LA: Language

English

PY: Publication Year

2001

PT: Publication Type

Comment; Letter

CP: Country of Publication

England

DE: Descriptors

Brain Death: diagnosis; Brain Death: legislation & jurisprudence; Child; Child, Preschool; Data Collection; Female; Human; Incidence; Infant; Japan: epidemiology; Life Support Care: standards; Life Support Care: trends; Male; Risk Assessment; Risk Factors; Tissue Donors

ID: Identifiers

Kennedy Institute of Ethics (Georgetown University): Clinical Approach/Source; Death and Euthanasia

LR: Last Revision Date

20020821

UD: Update

20020822

RO: Record Owner

National Library of Medicine

SF: Subfile

Abridged Index Medicus; BIOETHICSLINE; Index Medicus

AN: Accession Number

11386328

TI: Transcranial Doppler assessment of brain death in children.

AU: Qian-S-Y {a}; Fan-X-M; Yin-H-H

AD: {a} Intensive Care Unit, Beijing Child. Hosp., 56 Nan Li Shi Road, Beijing, China

SO: SMJ-. June, 1998; 39 (6) 247-250.

PY: 1998

DT: Article-

LA: English

AB: Aim: To estimate the values of transcranial doppler (TCD) in the determination of brain death in children. Method: Fifty-eight comatose children (from 2 days to 13 years, median 28 months) with Glasgow Coma Scores of Itoreq 7 had TCD examinations. The waveforms and the cerebral blood flow velocities of the middle cerebral arteries (MCAs) were monitored at intervals. Electroencephalogram (EEG) was recorded continuously in 34 patients. Twenty children survived, 38 died, 17 patients met the criteria for determination of brain death by clinical and EEG criteria or by clinical criteria alone. The prevalence of retrograde diastolic flow (RDF) was analysed by using chi-square test. Results: All the brain death patients displayed "special" TCD waveforms including RDF or small systolic forward flow (SFF). RDF appeared in 14, 2 and 3 patients in the brain death, non-brain death and survival group respectively. The occurrence of RDF in the brain death group was significantly higher than in the other two groups ($p < 0.01$). Persistence of RDF or SSF and direction of flow index < 0.8 in the MCAs for more than 2 hours in serious comatose children, was a reliable indicator to predict or confirm brain death. Using this criteria, no false negative or false positive results were found in this group of patients. Conclusion: TCD has a high sensitivity and specificity in the determination of brain death in children.

AI: Y

MC: Neurology- (Human-Medicine, Medical-Sciences); Pediatrics- (Human-Medicine, Medical-Sciences); Radiology- (Medical-Sciences)

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-): child-

TN: Animals-; Chordates-; Humans-; Mammals-; Primates-; Vertebrates-

PS: middle-cerebral-arteries: circulatory-system, nervous-system

DS: brain-death: nervous-system-disease; coma-: nervous-system-disease

MQ: electroencephalogram-: diagnostic-method; transcranial-Doppler-ultrasonography: diagnostic-method

MI: cerebral-blood-flow-velocity; retrograde-diastolic-flow; systolic-forward-flow

AN: 199800407792

UD: 19980803

TI: Return of Spontaneous Respiration in an Infant Who Fulfilled Current Criteria to Determine Brain Death.

AU: Okamoto-Ken {a}; Sugimoto-Tsuyoshi

AD: {a} Dep. Traumatol. Critical Care Med., Natl. Defense Med. Coll., 3-2, Namiki, Tokorozawa Saitama 359, Japan

SO: Pediatrics-. 1995; 96 (3 PART 1) 518-520.

PY: 1995

DT: Article-

IS: 0031-4005

LA: English

MC: Biochemistry-and-Molecular-Biophysics; Endocrine-System (Chemical -Coordination-and-Homeostasis); Metabolism-; Nervous-System (Neural -Coordination); Neurology- (Human-Medicine, Medical-Sciences); Pathology-; Pediatrics- (Human-Medicine, Medical-Sciences); Respiratory-System (Respiration-)

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

MI: CASE-STUDY; DIAGNOSIS-; ELECTROENCEPHALOGRAM-;

HYPOGLYCEMIA-;

NESIDIOBLASTOSIS-; TREATMENTAN:

199598502689

TI: Transesophageal echocardiographic assessment of left ventricular function during apnea testing for brain death.

AU: Orliaguet-Gilles-A; Catoire-Patrick; Liu-N'-Gai; Beydon-Laurent; Bonnet-Francis {a}

AD: {a} Surg. Intensive Care Unit, Dep. Anesthesiol., Hop. Henri Mondor, 51 Ave. du Marechal de Lattre Tassigny, 94010 Creteil, France

SO: Transplantation-Baltimore. 1994; 58 (6) 655-658.

PY: 1994

DT: Article-

IS: 0041-1337

LA: English

AB: The effects of apnea testing-induced respiratory acidosis on left ventricular function (LVF) are still controversial. The aim of the study was to assess LVF during apnea testing using transesophageal echocardiography (TEE). Twenty consecutive patients suspected of brain death, hemodynamically stable, and considered as potential organ donors were prospectively studied. A 20-min apnea test was performed after obtaining a PaCO₂ of 35 mmHg and 20 min of FIO₂ 1 ventilation. LVF was assessed using TEE with a CFM 750 (Diasonic) connected to a 5 MHz probe. Heart rate (HR), mean arterial pressure (MAP), left ventricle enddiastolic and systolic area (LVEDA, LVESA), and LVF assessed by fractional area changes (FAC), systolic wall motion (SWM) scores, and blood gases were recorded at baseline, and after 5, 10, 15, and 20 min of apnea testing. In 19 patients, no spontaneous respiratory movement occurred during the standard 20-min period. In one patient (No. 15), the apnea test had to be stopped after 10 min because of hypoxia. HR, LVEDA, LVESA, and SWM were not significantly modified during the study. There was a progressive statistically significant decrease in MAP during apnea (from 77 ± 10 to 63 ± 11 mmHg), associated with a statistically significant increase in FAC at 20 min (from 48 ± 13 to 56 ± 8%). PACO₂, progressively rose (from 40 ± 3 to 95 ± 11 mmHg), associated with a decrease in pH (from 7.42 ± 0.06 to 7.09 ± 0.08). At the same time, PaO₂ decreased slightly in all patients, but values remained well above hypoxic levels, except for one patient. Despite severe respiratory acidosis the increase in FAC suggests that apnea testing is well tolerated for brain death assessment.

AI: Y

MC: Cardiovascular-Medicine (Human-Medicine, Medical-Sciences); Cardiovascular-System (Transport-and-Circulation); Metabolism-; Neurology- (Human-Medicine, Medical-Sciences); Pathology-; Pulmonary-Medicine (Human-Medicine, Medical-Sciences)

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-OR: human- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

MI: DIAGNOSTIC-METHOD; RESPIRATORY-ACIDOSIS

AN: 199497548535

Fetal brain death and Dandy-Walker malformation.

AU: Author

Otsubo Y; Yoneyama Y; Sawa R; Suzuki S; Araki T

AF: Author Affiliation

Department of Obstetrics and Gynaecology, Nippon Medical School,
Tokyo, Japan.

SO: Source

Prenatal diagnosis, 1999 Aug, 19(8):777-9

IS: ISSN

0197-3851

AB: Abstract

The diagnosis of brain death by Doppler ultrasonography and magnetic resonance imaging is reported in a fetus at 23 weeks' gestation. This is believed to be the first instance in which brain death has been shown in a premature fetus with a brain-stem anomaly. (Copyright 1999 John Wiley & Sons, Ltd.)

LA: Language

English

PY: Publication Year

1999

PT: Publication Type

Journal Article

CP: Country of Publication

ENGLAND

DE: Descriptors

Abortion, Spontaneous; Adult; Brain: blood supply; Brain Death: diagnosis; Brain Death: pathology; Brain Death: ultrasonography; Carotid Arteries: embryology; Carotid Arteries: physiopathology; Case Report; Dandy-Walker Syndrome: diagnosis; Dandy-Walker Syndrome: pathology; Dandy-Walker Syndrome: ultrasonography; Female; Fetal Diseases: diagnosis; Fetal Diseases: pathology; Fetal Diseases: ultrasonography; Heart Rate, Fetal; Human; Laser-Doppler Flowmetry; Magnetic Resonance Imaging; Pregnancy; Pregnancy Trimester, Second; Regional Blood Flow; Ultrasonography, Doppler; Ultrasonography, Prenatal

LR: Last Revision Date

20001218

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Index Medicus

AN: Accession Number

10451529

[Intracranial flowmetry study in coma and brain death]

OT: Original Title

Indagine flussimetria intracranica nel coma e nella morte cerebrale.

AU: Author

Pagliarulo R; Fiore T

AF: Author Affiliation

Istituto di Anestesiologia e Rianimazione, Universita degli Studi di Bari.

SO: Source

Minerva anesthesiologica, 1992 Oct, 58(10):921-2

IS: ISSN

0375-9393

LA: Language

Italian

PY: Publication Year

1992

PT: Publication Type

Journal Article

CP: Country of Publication

ITALY

DE: Descriptors

Brain Death; ultrasonography; Cerebrovascular Circulation; Coma; ultrasonography; Human; Rheology

LR: Last Revision Date

20001218

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Index Medicus

AN: Accession Number

1461492

TI: Declaring pediatric brain death: Current practice in a Canadian pediatric critical care unit.

AU: Parker-B-Louise; Frewen-Timothy-C {a}; Levin-Simon-D; Ramsay-David-A; Young

-G-Bryan; Reid-Robert-H; Singh-Narendra-C; Gillett-Jane-M-R

AD: {a} Victoria Hosp.-Children's Hosp. Western Ontario, 800 Commissioners Rd. E., London, ON N6C 2V5, Canada

SO: Canadian-Medical-Association-Journal. 1995; 153 (7) 909-916.

PY: 1995

DT: Article-

IS: 0820-3946

LA: English

LS: English; French

AB: Objective: To document the criteria used to declare brain death in a pediatric critical care unit (PCCU). Design: Retrospective chart review. Setting: Regional PCCU in southwestern Ontario. Patients: Sixty patients 16 years of age or less declared brain dead from January 1987 through December 1992. Outcome measures: Presence or absence of documentation of irreversible deep coma, nonresponsive cranial nerves, absent brain-stem reflexes, persistent apnea after removal from ventilator, presence or absence of blood flow detected by radioisotope scanning, presence or absence of electroencephalographic evidence of electrocerebral activity. Results: The 60 patients accounted for 1.5% of all PCCU admissions 17 were under 1 year of age. In 39 cases brain death was diagnosed using clinical criteria ("certified brain death"), which could not be fully applied in the remaining 21 cases ("uncertifiable but suspected brain death"). Electroencephalography and cerebral blood-flow studies with technetium-99m hexamethyl-propyleneamine oxime were used as ancillary tests in 16 patients with certified brain death and in 17 with uncertifiable but suspected brain death who survived long enough to be tested. Electroencephalography. Cerebral blood flow was undetectable in 26 of the 30 patients tested, and an abnormal pattern of blood flow was seen in the remaining 4, all of whom received a diagnosis of certified brain death. Conclusions: Pediatricians in this large tertiary care referral centre are using clinical criteria based on the 1987 guidelines of the CMA to diagnose brain death in pediatric patients, including neonates. When clinical criteria cannot be fully applied, ancillary methods of investigation are consistently used. Although the soundness of this pattern of practice is established for adults and older children, its applicability to neonates and infants still needs to be validated.

AI: Y

MC: Nervous-System (Neural-Coordination); Pathology-; Pediatrics- (Human -Medicine, Medical-Sciences); Public-Health (Allied-Medical-Sciences)

ST: Hominidae-; Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-
OR: human- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

GE: Canada- (North-America, Nearctic-region); Ontario- (Canada-, North-America, Nearctic-region)

MI: CEREBRAL-BLOOD-FLOW; CLINICAL-CRITERIA;

ELECTROENCEPHALOGRAPHY-; GUIDELINESAN:

199598524896

Pediatric brain death: dead is dead.

AU: Author

Paris JJ; Bell AJ; Murphy JJ

AF: Author Affiliation

Department of Theology, Boston College, Chestnut Hill, MA 02167,
USA.

SO: Source

Journal of perinatology : official journal of the California

Perinatal Association, 1995 Jan-Feb, 15(1):67-70

IS: ISSN

0743-8346

NT: Notes

KIE BoB Subject Heading: determination of death/brain death

[Kennedy Institute of Ethics (Georgetown University)]

RP: Report Number

KIE 55886; NRCBL 20.2.2

LA: Language

English

PY: Publication Year

1995

PT: Publication Type

Journal Article

CP: Country of Publication

UNITED STATES

DE: Descriptors

Adolescence; Brain Death: legislation & jurisprudence; Child;

Child, Preschool; Communication; Ethics, Medical; Group Processes;

Human; Life Support Care: legislation & jurisprudence; Patient

Advocacy; Professional-Family Relations; Withholding Treatment

ID: Identifiers

Kennedy Institute of Ethics (Georgetown University): Adolescents;

Clinical Approach/Source; Death and Euthanasia; Determination Of

Death; Dissent; Florida; Infants; New York; Physician Family

Relationship; Ventilators

LR: Last Revision Date

20011128

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

BIOETHICSLINE; Index Medicus

AN: Accession Number

92

7650557

T sub(c)-99m HMPAO brain-death studies in infants and small children

AU: Authors

Reid, RH; Gelfand, MJ

CS: Conference Sponsor

American Association of Physicists in Medicine; Radiological Society of North America

CF: Conference

77th Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, IL (USA), 1-6 Dec 1991. (World Meeting Number 914 5053)

NT: Notes

Availability: RSNA, 2021 Spring Rd., Suite 600, Oak Brook, IL 60521, USA. Telephone: (708) 571-7877., Abstracts; Radiology; V 181 (P) Supplement Paper No. 482

SF: Subfile Name

CPI, Conference Papers Index

CL: Classification Code

U 3500 CLINICAL MEDICINE; U 4500 EXPERIMENTAL MEDICINE

AN: Accession Number

2679050

A1: Alert Info

20001231

TI: Brain death in children: Clinical, neurophysiological and radioisotopic angiography findings in 125 patients.

AU: Ruiz-Garcia-Matilde {a}; Gonzalez-Astiazaran-Adalberto; Collado-Corona-Miguel-Angel; Rueda-Franco-Fernando; Sosa-de-Martinez-Cristina

AD: {a} Instituto Nacional de Pediatría, Insurgentes Sur 3700-C, Col.

Insurgentes-Cuicuilco, 04531, Mexico, DF, Mexico

SO: Child's-Nervous-System. Jan., 2000; 16 (1): 40-46.

PY: 2000

DT: Article-

IS: 0256-7040

LA: English

LS: English

AB: The objective of this study was to determine the main clinical, neurophysiological and angiographic findings in brain death (BD) in children seen at the Instituto Nacional de Pediatría, a third-level facility in Mexico City, between 1991 and 1996. The following variables were retrospectively analyzed: sex, age, etiology, associated morbidity, duration of stay in hospital, and the results of two of three confirmatory studies (electroencephalogram, evoked potentials, radioisotopic angiography). In all, 125 patients were studied (78 male; median age 2 years (range: 18 days to 17 years)). The most frequent etiology was infection (34%); 57% of the children developed associated morbidity. In 111 of 122 patients electrocerebral silence was observed; 100 of 107 had brain stem and somatosensory evoked potentials affording conclusive evidence of BD; and 83 of 90 patients had a positive radioisotopic angiography indicating BD. In 76 patients all three confirmatory studies were performed: for 15 there was at least one false-negative test result. Our age cohort showed a predominance of children less than 2 years old. BD etiologies in developing countries differ from those reported in developed countries.

AI: Y

MC: Neurology- (Human-Medicine, Medical-Sciences); Pediatrics- (Human-Medicine, Medical-Sciences); Epidemiology- (Population-Studies)

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-): adolescent-, child-, female-, infant-, male-, patient-

TN: Animals-; Chordates-; Humans-; Mammals-; Primates-; Vertebrates-

GE: Mexico-City (Mexico-, North-America, Nearctic-region)

MQ: computed-tomography: evaluation-method; electroencephalography-:

confirmatory-study, evaluation-method; radioisotopic-angiography:

confirmatory-study, evaluation-method; ultrasonography-: evaluation-method

MI: brain-death: age-related-differences, clinical-findings, etiology-,

morbidity-, neurophysiological-findings, radiologic-findings, sex-related

-differences; evoked-potential: confirmatory-study, electrocerebral

-silence; hospitalization-: stay-duration

AN: 200000078005

UD: 20000322

TI: No resuscitation and withdrawal of therapy in a neonatal and a pediatric intensive care unit in Canada.

AU: Ryan-C-Anthony {a}; Byrne-Paul; Kuhn-Susan; Tyebkhan-Juzer
AD: {a} Neonatal Intensive Care Unit, Royal Alexandra Hosp., 10240 Kingsway, Edmonton, AB T5H 3V9, Canada

SO: Journal-of-Pediatrics. 1993; 123 (4) 534-538.

PY: 1993

DT: Article-

IS: 0022-3476

LA: English

AB: Study objective: To compare and contrast the modes of death in a neonatal (NICU) and a pediatric (PICU) intensive care unit. Design: Retrospective analysis of patient records. Subjects: All newborn infants and children (< 17 years of age) who died in the NICU and PICU at the University of Alberta Hospitals, Edmonton, between Jan. 1, 1990, to Dec. 31, 1991. Results: The mortality rate in the PICU was 8.7% (73/839) compared with 5.6% (75/1333) in the NICU ($p = 0.007$). Withdrawal of therapy was the most common cause of death in both units and occurred more commonly in the NICU (NICU = 69% vs PICU = 34%; $p = 0.01$). There were significantly more deaths as a result of failed cardiopulmonary resuscitation (CPR) in the PICU than in the NICU (29% vs 13%; $p = 0.046$). Death after no-CPR orders occurred with equal frequency in both units (NICU 17%; PICU 15%). Brain death accounted for 22% (16/ 87) of PICU deaths; no infant in the NICU was declared brain dead ($p < 0.05$). When deaths resulting from brain death and foiled CPR were excluded, there was no significant difference between the two units regarding withdrawal of therapy (NICU 80% vs PICU 69%) and no-CPR orders (NICU 20% vs PICU 30%). Conclusions: This study confirms that both withdrawal of therapy and no-CPR orders are part of current clinical practice in both the NICU and PICU settings. The ethical foundations and implications of these practices need further elaboration.

AI: Y

MC: Human-Ecology (Anthropology-); Pathology-; Pediatrics- (Human-Medicine, Medical-Sciences); Public-Health (Allied-Medical-Sciences)

ST: Hominidae-; Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

MI: DEATH-MODE; ETHICAL-IMPLICATION

AN: 199497010831

Brain death in infants and children.

AU: Author

Sainio K

AF: Author Affiliation

Laboratory of Clinical Neurophysiology, Children's Hospital,
University of Helsinki.

SO: Source

Neurologia i neurochirurgia polska, 1996, 30 Suppl 3:25-9

IS: ISSN

0028-3843

LA: Language

English

PY: Publication Year

1996

PT: Publication Type

Journal Article

CP: Country of Publication

POLAND

DE: Descriptors

Brain Death: diagnosis; Child, Preschool; Gestational Age; Human;
Infant; Infant, Newborn; Infant, Premature

LR: Last Revision Date

20001218

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Index Medicus

AN: Accession Number

9153006

**[Brain death in pediatric patients--from the viewpoint of
pediatric intensive care]**

AU: Author

Sakai H

AF: Author Affiliation

Department of Anesthesia and ICU, National Children's Hospital,
Tokyo.

SO: Source

No to hattatsu. Brain and development, 2000 Sep, 32(5):442-4

IS: ISSN

0029-0831

AB: Abstract

In Japan, "brain death" has been discussed exclusively in connection with organ transplantation. However, the concept of brain death, which emerged with the progress in intensive care medicine, should be discussed in the context of palliative care in the ICU. It should be recognized that intensive care medicine includes not only life-saving high-tech therapeutic modalities, but also ethical and psycho-social aspects of modern medicine. In order to find out a decent solution to pediatric brain death issues, it is essential to develop pediatric intensive care in Japan.

LA: Language

Japanese

PY: Publication Year

2000

PT: Publication Type

Journal Article; Review; Review, Tutorial

CP: Country of Publication

JAPAN

DE: Descriptors

Brain Death; Child; Child, Preschool; English Abstract; Ethics,
Medical; Human; Infant; Infant, Newborn; Intensive Care; Japan;
Organ Transplantation; Palliative Care; Pediatrics

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Index Medicus

AN: Accession Number

11004841

Determination of brain death in children.

AU: Author

Savoia G; Lucke F; Mazzarella B

AF: Author Affiliation

Istituto di Anestesia, Rianimazione e dell'Emergenza, Universita degli Studi di Palermo.

SO: Source

Minerva anesthesiologica, 1994 Oct, 60(10):625-31

IS: ISSN

0375-9393

LA: Language

English

PY: Publication Year

1994

PT: Publication Type

Journal Article

CP: Country of Publication

ITALY

DE: Descriptors

Algorithms; Brain Death: diagnosis; Brain Death: physiopathology;

Child; Human

LR: Last Revision Date

20001218

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Index Medicus

AN: Accession Number

7830933

TI: Solid organ procurement from burned children.

AU: Sheridan-Robert-L {a}; Uberti-Eileen; Frank-Kris-T; DelMonico-Francis-L

AD: {a} Shriners Burns Hospital, 51 Blossom Street, Boston, MA, 02114, USA

SO: Journal-of-Trauma-Injury-Infection-and-Critical-Care. Dec., 1999; 47 (6): 1060-1062.

PY: 1999

DT: Article-

IS: 1079-6061

LA: English

LS: English

AB: Background: Burns have constituted a traditional contraindication to solid organ procurement because of concerns that such organs may be damaged by burn shock associated splanchnic ischemia and contaminated by burn wound manipulation associated bacteremia. Methods: Over a 5-year period, we attempted solid organ procurement from five burned children who had suffered concurrent anoxic brain injury. Results: These four boys and one girl had an average age of 8.1 years (range, 2.5-12 years) and burn size of 29% (range, 4-70%). All were injured in house fires and four of five (80%) required prehospital external cardiac compressions. Brain death was declared an average of 35 hours (range, 2.75-77 hours) after injury. Solid organs procured and successfully transplanted from this group were 4 livers, 10 kidneys, and 2 hearts. Two of the livers and one heart were placed into pediatric recipients. Procured tissues included three sets of cardiac valves, and two corneas. All solid organs transplanted were functional at 6 months, although longer follow-up is not available. Conclusion: Early identification and diagnosis of brain death during resuscitation of burn patients with anoxic brain injury, combined with careful resuscitation and support of the brain dead potential organ donor, can result in the recovery of suitable solid organs and tissues for transplantation.

AI: Y

MC: Neurology- (Human-Medicine, Medical-Sciences); Pediatrics- (Human-Medicine, Medical-Sciences); Surgery- (Medical-Sciences)

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-): female-, male-, patient-, preadolescent-, preschool-

TN: Animals-; Chordates-; Humans-; Mammals-; Primates-; Vertebrates-

PS: cardiac-valves: circulatory-system; cornea-: sensory-system; heart-: circulatorysystem; kidney-: excretory-system; liver-: digestive-system

DS: anoxic-brain-injury: nervous-system-disease; brain-death: diagnosis-, nervoussystem-disease; burn-: injury-

MQ: solid-organ-transplantation: therapeutic-method, transplantation-method

ALT: Brain-Death-(MeSH); Burns-(MeSH)

AN: 200000082241

UD: 20000322

[Preliminary report: use of clinical criteria for the determination of pediatric brain death and confirmation by radionuclide cerebral blood flow]

AU: Author

Shimizu N; Shemie S; Miyasaka E; Matsumoto H; Miyasaka K; Gilday D; Barker G

AF: Department of Critical Care Medicine, Hospital for Sick Children, Toronto, Canada.

SO: Source

Masui. The Japanese journal of anesthesiology, 2000 Oct, 49(10):1126-32

IS: ISSN

0021-4892

AB: Abstract

The medical records of all brain dead patients (n = 228) at the Hospital for Sick Children, Toronto from January 1990 to December 1999 were reviewed. A radionuclide cerebral blood flow study (RCBFS) as a supportive and confirmatory test was performed on 27 patients and the clinical diagnosis of brain death was confirmed on all of them. A RCBFS was performed on 10 out of 27 patients because full clinical evaluation could not be performed due to severe facial injuries or cervical injuries. A RCBFS was performed on 17 patients who underwent a full clinical evaluation, of which 15 cases were due to uncertainty in the clinical etiology of the deep coma and 2 cases were due purely to the need to persuade the family. In recent years, RCBFS was not used as extensively on patients who underwent a full clinical evaluation, reflecting social acceptance and a higher level of clinical certainty in diagnosing brain death in children. This study supports the opinion that brain death can be accurately diagnosed in pediatric patients with clinical criteria alone and confirmatory tests are not necessary in most cases.

LA: Language

Japanese

PY: Publication Year

2000

PT: Publication Type

Journal Article

CP: Country of Publication

JAPAN

DE: Descriptors

Adolescence; Brain Death: diagnosis; Brain Death: physiopathology;

Brain Death: radionuclide imaging; Cerebrovascular Circulation;

Child; Child, Preschool; English Abstract; Human; Infant;

Reference Standards

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Index Medicus

AN: Accession Number

11075562

Usefulness of (Tc 99m) HM-PAO scan in supporting clinical brain death in children: uncoupling flow and function.

AU: Author

Singh NC; Reid RH; Loft JA; Frewen TC; Parker BL; Dhillon JS

AF: Author Affiliation

Paediatric Critical Care Unit, Department of Paediatrics and
Department of Nuclear Medicine, University of Western Ontario,
Children's Hospital of Western Ontario, Canada.

SO: Source

Clinical intensive care : international journal of critical &
coronary care medicine, 1994, 5(2):71-4

IS: ISSN

0956-3075

AB: Abstract

OBJECTIVE. To determine the usefulness of (Tc 99m) HM-PAO scan in supporting the clinical diagnosis of brain death. DESIGN.

Retrospective review. SETTING. Paediatric Intensive Care Unit.

SUBJECTS. A total of 39 paediatric patients had HM-PAO scans conducted to confirm the presence of brain death or to assess the degree of brain injury. INTERVENTIONS. All patients had (Tc 99m)

HM-PAO injected before the scan was conducted. MEASUREMENTS AND

MAIN RESULTS. Fifty-four scans were done in 39 patients. The majority of cerebral injury was as a result of closed head injury or asphyxia/anoxia. There were 20 scans which demonstrated no cerebral blood flow (CBF); however, in 26 situations patients were clinically brain dead. All of the patients who continued to have CBF in the presence of clinical brain death sustained asphyxial/anoxic injuries. CONCLUSIONS. The HM-PAO scan is a useful non-invasive portable tool for supporting the diagnosis of brain death when there is absent CBF. However, continued flow may be present in asphyxial/anoxic injuries in the presence of clinical brain death.

LA: Language

English

PY: Publication Year

1994

PT: Publication Type

Journal Article

CP: Country of Publication

ENGLAND

DE: Descriptors

Adolescence; Asphyxia; Blood Flow Velocity; Brain Death: radionuclide imaging; Brain Injuries: radionuclide imaging; Cerebral Cortex: blood supply; Child; Child, Preschool; Human; Infant; Infant, Newborn; Organotechnetium Compounds: diagnostic use; Oximes: diagnostic use; Radionuclide Imaging: instrumentation; Radionuclide Imaging: methods; Retrospective Studies

RN: CAS Registry Number

0 (Organotechnetium Compounds); 0 (Oximes)

LR: Last Revision Date

20001218

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Health technology assessment

AN: Accession Number

10147256

TI: Glasgow Coma Scale and Brain Death-A Proposal.

AU: Singounas-E-G

AD: Dep. Neurosurg., Evangelismos Gen. Hosp., Tositsa 26, 10683 Athens, Greece

SO: Acta-Neurochirurgica. 1995; 133 (1-2) 60.

PY: 1995

DT: Article-

IS: 0001-6268

LA: English

AB: It has been proposed to add to the Glasgow Coma Scale the score 2 as symbolic expression of brain death.

AI: Y

MC: Neurology- (Human-Medicine, Medical-Sciences)

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

MI: BRAIN-STEM-REFLEXES; GCS-SCORE-2; NOTEAN:

199598284617

TI: Direct comparison of Tc-99m DTPA and Tc-99m HMPAO for evaluating brain death.

AU: Spieth-Michael-E {a}; Ansari-Azizullah-N; Kawada-Tom-K; Kimura-Robyn-L; Siegel-Michael-E

AD: {a} Dep. Radiol., King/Drew Med. Cent., 12021 South Wilmington Way, Los Angeles, CA 90059, USA

SO: Clinical-Nuclear-Medicine. 1994; 19 (10) 867-872.

PY: 1994

DT: Article-

IS: 0363-9762

LA: English

AB: Portable cerebral perfusion studies provide a quick and accurate alternative to traditional confirmatory examinations (such as four-vessel angiography and electroencephalography) to determine brain death. The authors retrospectively analyzed 26 cerebral perfusion studies using both Tc-99m DTPA and Tc-99m HMPAO. The flow agents gave identical results. Additionally, the delayed-phase Tc-99m HMPAO images gave the same results for brain death (14 positive and 12 negative) as the flow images from either agent. Because the Tc-99m HMPAO delayed images can be used for diagnosis, many technical problems become less crucial. Unlike Tc-99m DTPA, Tc-99m HMPAO normally visualizes the gray matter of the cerebellum, midbrain, and medulla. These areas must be evaluated to ensure that they meet the strict criteria for brain death. These differences and the present study suggest that Tc-99m HMPAO is a superior agent for cerebral perfusion studies to determine brain death.

AI: Y

MC: Neurology- (Human-Medicine, Medical-Sciences); Pathology-; Pharmacology-

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

CB: TECHNETIUM-99M-DIETHYLENETRIAMINE-PENTAACETIC-ACID;

TECHNETIUM-99M

RN: 77319-47-2: TECHNETIUM-99M DIETHYLENETRIAMINE PENTAACETIC

ACID; 14133-76-7:

TECHNETIUM-99M

MI: CEREBRAL-PERFUSION; DIAGNOSTIC-DRUG; TECHNETIUM-99MDIETHYLENETRIAMINE

-PENTAACETIC-ACID; TECHNETIUM-99MHXAMETHYLPROPYLENEAMINE-

OXIME

AN: 199497548606

TI: Brain death in pediatric intensive care unit patients: Incidence, primary diagnosis, and the clinical occurrence of Turner's triad.

AU: Staworn-Dusit; Lewison-Laura; Marks-James; Turner-Gary; Levin-Daniel
AD: Sect. Pediatr. Critical Care Med., Dep. Pediatr., Univ. Texas, Southwestern Med. Center Dallas, Dallas, TX, USA

SO: Critical-Care-Medicine. 1994; 22 (8) 1301-1305.

PY: 1994

DT: Article-

IS: 0090-3493

LA: English

AB: Objectives: To determine the incidence and characteristics of children with brain death in the pediatric intensive care unit (ICU), and to assess the incidence of the clinical triad (Turner's triad) of central diabetes insipidus, low glucose demand, and low CO₂ production. Design: Retrospective review of medical records. Setting: Two multidisciplinary pediatric ICUs. Patients: Medical records of pediatric patients declared brain dead and admitted to two multidisciplinary pediatric ICUs. Measurements and Main Results: Patient records were reviewed for demographic data, primary diagnosis, severity of illness (Pediatric Risk of Mortality score and calculated risk of mortality), methods by which brain-death diagnosis was determined, presence of central diabetes insipidus, low glucose demand, low CO₂ production in the final 24 hrs before the diagnosis was made, and whether organ donation was accomplished. The incidence of brain death among all patients admitted to the pediatric ICUs was 0.9%, accounting for 11% of patients who died during the same period. The most common presentation leading to brain-death diagnoses was trauma, followed by drowning/near drowning, and meningitis. The majority of brain-death diagnoses were made using both clinical criteria and confirmatory tests (66%). The incidence of clinical signs of Turner's triad was 41% for central diabetes insipidus, 49% for low glucose demand, and 53% for low CO₂ production. Two of the three features were present in 38% of patients, and 12% of the patients had all three features. Conclusions: Our series of brain-dead patients in the pediatric ICU showed a 0.9% incidence of brain death. The most common primary diagnosis was trauma, a finding that is similar to other series. We also demonstrated that the clinical triad (Turner's triad) is present in this patient population, although only 12% of study patients demonstrated all three features.

AI: Y

MC: Biochemistry-and-Molecular-Biophysics; Endocrine-System (Chemical-Coordination-and-Homeostasis); Epidemiology- (Population-Studies); Metabolism-; Neurology- (Human-Medicine, Medical-Sciences); Pathology-; Pediatrics- (Human-Medicine, Medical-Sciences); Physiology-; Public-Health (Allied-Medical-Sciences); Pulmonary-Medicine (Human-Medicine, Medical-Sciences); Respiratory-System (Respiration-)

ST: Hominidae-; Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-
OR: human- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

CB: GLUCOSE-; CARBON-DIOXIDE

GE: USA- (North-America, Nearctic-region)

RN: 50-99-7: GLUCOSE; 124-38-9: CARBON DIOXIDE

MI: CRITICAL-ILLNESS; DIABETES-INSIPIDUS; LOW-CARBON-DIOXIDEPRODUCTION;
LOW

-GLUCOSE-DEMAND; MECHANICAL-VENTILATION; ORGAN-DONATION;
RESPIRATORY-RATE;

TIDAL-VOLUME; TRAUMAAN:

199497455266

[Report of Sata Clinical Fellowship; brain death and organ donation in hospital for sick children, Toronto, Canada]

AU: Author

Tanaka M

AF: Author Affiliation

Department of Intensive Care Medicine, Shiga University of Medical Science, Otsu.

SO: Source

Masui. The Japanese journal of anesthesiology, 2000 Apr, 49(4):445-7

IS: ISSN

0021-4892

AB: Abstract

I have experienced two cases of pediatric organ donation from the brain dead patients in Hospital for Sick Children in three months. First case was a 9-year-old boy after a traffic accident. Second case was an 11-year-old boy with intracranial hemorrhage. Brain death is diagnosed by clinical criteria alone in Canada, as in many of developed countries. EEG or brain flow studies are not mandatory. In the first case, brain death was confirmed after additional brain flow study, EEG, and SSEP because of cervical spinal injury. Second case was diagnosed as brain death by clinical criteria alone, and cardiopulmonary resuscitation was performed after brain death diagnosis. MORE (multiple organ receival and exchange program of Ontario), Organ Donation Team (critical care physicians, nurses, organ donation coordinators, social workers and chaplains) in HSC, and volunteers play the important role to help the family and to make the organ transplantation successful. In Canada, pediatric brain death and organ donation are widely accepted, but there remains an imbalance between the demand for transplantation and the number of organs available.

LA: Language

Japanese

PY: Publication Year

2000

PT: Publication Type

Journal Article

CP: Country of Publication

JAPAN

DE: Descriptors

Age Factors; Brain Death: diagnosis; Canada; Case Report; Child; English Abstract; Hospitals, Pediatric; Human; Male; Organ Transplantation; Tissue Donors; Tissue Harvesting

LR: Last Revision Date

20001218

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Index Medicus

AN: Accession Number

10793535

[Historical review of pediatric brain death in Japan]

AU: Author

Takeshita K

AF: Author Affiliation

Tottori University Faculty of Medicine, Division of Child
Neurology, Yonago.

SO: Source

No to hattatsu. Brain and development, 2000 Sep, 32(5):440-1

IS: ISSN

0029-0831

AB: Abstract

Although brain death of children has recently been hotly discussed in Japan, there still remain uncertainty and confusion. A pediatrician's diagnosis that a child is brain-dead entails delicate and emotional issues. Circumstances of the patients, families and institutions are so variable that many questions cannot be answered. It is most important to be aware of these problems and to seek consensus in the community. Pediatricians should provide their best care to both the patients and their families.

LA: Language

Japanese

PY: Publication Year

2000

PT: Publication Type

Journal Article; Review; Review, Tutorial

CP: Country of Publication

JAPAN

DE: Descriptors

Brain Death: diagnosis; Child; Child, Preschool; English Abstract;
Family; Human; Infant; Infant, Newborn; Japan; Pediatrics;
Practice Guidelines; Reference Standards; Time Factors

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Index Medicus

AN: Accession Number

11004840

TI: Brain death in infancy and childhood.

AU: Takeuchi-Kazuo

AD: Dep. Neurosurgery, Kyorin University School Medicine, Mitaka, Tokyo 181, Japan

SO: Brain-and-Nerve-Tokyo. 1994; 46 (1) 13-18.

PY: 1994

DT: Article-

IS: 0006-8969

LA: Japanese; Non-English

MC: Neurology- (Human-Medicine, Medical-Sciences); Pathology-; Pediatrics- (Human-Medicine, Medical-Sciences)

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

MI: DETERMINING-FACTOR; DIAGNOSTIC-CRITERIA

AN: 199497194044

Brain death in the neonate: assessment with P-31 MR spectroscopy.

AU: Author

Terk MR; Gober JR; DeGiorgio C; Wu P; Colletti PM

SO: Source

Radiology, 1992 Feb, 182(2):582-3

IS: ISSN

0033-8419

NT: Notes

Comment on: Radiology. 1991 Apr;179(1):95-9 [AN=2006312]

LA: Language

English

PY: Publication Year

1992

PT: Publication Type

Comment; Letter

CP: Country of Publication

UNITED STATES

DE: Descriptors

Brain Death: diagnosis; Brain Death: metabolism; Case Report;

Human; Infant, Newborn; Magnetic Resonance Spectroscopy

LR: Last Revision Date

20011126

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Abridged Index Medicus; Index Medicus

AN: Accession Number

1732990

Rectal and scalp temperature differences accurately predict brain death in children

AU: Authors

Trevino, RJ; Stein, F; Jefferson, LS; David, Y; Walding, D; Stone, S; Pham, D; Moore, W; Miller, G

CS: Conference Sponsor

American Academy of Neurology

CF: Conference

48th Annual Meeting of the American Academy of Neurology, San Francisco, CA (USA), 23-30 Mar 1996. (World Meeting Number 9610023)

NT: Notes

Availability: Little, Brown and Company, 34 Beacon Street, Boston, MA 02108, Abstracts available. Poster Paper No. P06.003

LA: Language

English

SF: Subfile Name

CPI, Conference Papers Index

CL: Classification Code

U 3500 Clinical Medicine

AN: Accession Number

3220234

A1: Alert Info

20001231

TI: Auditory brainstem response and temporal bone pathology findings in a braindead infant.

AU: Ushio-Munetaka {a}; Kaga-Kimitaka; Sakata-Hideaki; Ogawa-Yoshihiro; Makiyama-Yasuhide; Nishimoto-Hiroshi

AD: {a} Department of Otolaryngology, Faculty of Medicine, University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo: IZT01356@nifty.ne.jp, Japan

SO: International-Journal-of-Pediatric-Otorhinolaryngology. [print] 11 May, 2001; 58 (3): 249-253.

PY: 2001

DT: Article-

IS: 0165-5876

LA: English

LS: English

AB: The criteria for assessing adult brain death have been already established, but those for infant brain death have not been yet established in Japan. We report auditory brainstem response (ABR) and postmortem pathology of the temporal bone and brain of a brain-dead 9-month-old female. During the comatose state, her ABR showed only waves I and II bilaterally. Autopsy revealed the presence of a left cerebellar astrocytoma, herniation and anoxic encephalopathy. The pathological examination of the temporal bone revealed the destruction of the inner ear particularly on the left side. In the auditory pathway of brain-dead patients, degeneration occurs first in the cerebrum, followed by the cochlear nerve. Thus, ABR is one of the useful means to assess brain death even in infants.

AI: Y

MC: Neurology- (Human-Medicine, Medical-Sciences); Otolaryngology- (Human-Medicine, Medical-Sciences); Pediatrics- (Human-Medicine, Medical-Sciences)

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-): female-, infant-, patient-

TN: Animals-; Chordates-; Humans-; Mammals-; Primates-; Vertebrates-

PS: auditory-pathway: nervous-system; brain-: nervous-system; brainstem-: nervous-system; cerebrum-: nervous-system; cochlear-nerve: nervous-system; hair-cells: nervous-system, sensory-system; inner-ear: sensory-system; organ-of-Corti: sensory-system; temporal-bone: skeletal-system

DS: anoxic-encephalopathy: nervous-system-disease; brain-death: criteria-, diagnosis-, nervous-system-disease; hydrocephalus-: congenital-disease, nervous-system-disease; left-cerebellar-astrocytoma: diagnosis-, neoplastic-disease, nervous-system-disease

MQ: electroencephalography-: evaluation-method; mechanical-ventilation: therapeutic-method; ventricular-drainage: surgical-method, therapeutic-method

MI: auditory-brainstem-response; temporal-bone-pathology; Case-Study

ALT: Hydrocephalus-(MeSH)

AN: 200100184630

UD: 20010529

TI: DIAGNOSIS OF BRAIN DEATH IN THE NEONATE AND IN THE CHILD.

AU: VECCHIERINI-BLINEAU-M-F {a}; MOUSSALLI-SALEFRANQUE-F

AD: {a} LAB PHYSIOL APPLIQUEE EXPLORATIONS FONCTIONNELLES, FAC
MED, 1 RUE GASTON-VEIL, 44035 NANTES CEDEX, FR

SO: Neurophysiologie-Clinique. 1992; 22 (3): 179-190.

PY: 1992

DT: Article-

IS: 0987-7053

LA: FRENCH

AB: The purpose of this article was to sum up the problems raised by diagnosis of brain death in the child through a review of the literature. The clinical and paraclinical criteria of the diagnosis are considered in terms of the respective value and complementarity of different examinations. The fact that organ removal has become increasingly frequent in the child requires a rapid and reliable determination of the irreversibility of brain damage. The guidelines set up after conferences in which American authors participated to reach a consensus opinion relate to the child's age, the etiology, of the coma and the results of various paraclinical examinations. The diagnostic value of these examinations is assessed and the limitations of the various approaches are considered, particularly as regards certain etiologies in the newborn. It is suggested that it would be useful to inquire into the different diagnostic means used in France with respect to this difficult problem. Finally, the ethical and moral problems raised by some recent practices such as organ removal in anencephalic patients are discussed.

AI: Y

ST: Hominidae-; Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

TN: Animals-; Chordates-; Humans-; Mammals-; Primates-; Vertebrates-

MI: REVIEW HUMAN ANENCEPHALY ETIOLOGY CLINICAL CRITERIA

ORGAN REMOVAL MEDICAL ETHICS AMERICA FRANCE

MJCC: CC37012 (Public-Health-Health-Services-and-Medical-Care)

CC00502 (General-Biology-Philosophy)

CC12504 (Pathology-General-and-Miscellaneous-Diagnostic)

CC12510 (Pathology-General-and-Miscellaneous-Necrosis)

CC20506 (Nervous-System-Pathology)

CC25000 (Pediatrics)

CC25552 (Developmental-Biology-Embryology-Descriptive-Teratology-and-Teratogenesis)

MNCC: CC11105 (Anatomy-and-Histology-General-and-Comparative-Surgery)

AN: 199294114061

UD: 1992

TI: Modes of death in the pediatric intensive care unit: Withdrawal and limitation of supportive care.

AU: Vernon-Donald-D {a}; Dean-J-Michael; Timmons-Otwell-D; Banner-William-Jr; Allen-Webb-Elizabeth-M

AD: {a} Pediatric Critical Care Serv., Primary Children's Med. Cent., 100 N. Medical Drive, Salt Lake City, UT 84113, USA

SO: Critical-Care-Medicine. 1993; 21 (11) 1798-1802.

PY: 1993

DT: Article-

IS: 0090-3493

LA: English

AB: Objective: To determine the frequency of withdrawal or limitation of supportive care for children dying in a pediatric intensive care unit (ICU). Design: Retrospective review of medical records. Setting: Pediatric ICU in a tertiary care children's hospital. Patients: All children dying in the pediatric ICU over a 54-month period (n = 300). Interventions: Medical record review. Measurements and Main Results: Data recorded for each patient included diagnosis, mode of death, and whether the child was brain dead. Each patient was assigned to one of the following mode of death categories: brain dead; active withdrawal of supportive care (meaning removal of the endotracheal tube); failed cardiopulmonary resuscitation; allowed to die without cardiopulmonary resuscitation (do-not-resuscitated status). A total of 300 patients were identified.

Diagnoses included postoperative congenital heart disease (n = 56), head trauma (n = 38), near-miss sudden infant death syndrome (n = 28), pneumonia (n = 22), sepsis (n = 21), near-drowning (n = 21), various anoxic insults (n = 20), multiple trauma (n = 17), and patients with other diagnoses (n = 77). Mode of death was active discontinuation of support in 92 (32%) patients, do-not-resuscitate status in 78 (26%), brain death in 70 (23%), and failed cardio-pulmonary resuscitation in 57 (19%).

Conclusions: In a large, multidisciplinary pediatric ICU, the most common mode of death was active withdrawal of support. In addition, more than half (173/300, 58%) of children dying in the pediatric ICU underwent either active withdrawal or limitation (do-not-resuscitate status) of supportive care.

AI: Y

MC: Cardiovascular-Medicine (Human-Medicine, Medical-Sciences); Neurology- (Human-Medicine, Medical-Sciences); Pathology-; Pediatrics- (Human-Medicine, Medical-Sciences); Public-Health (Allied-Medical-Sciences)

ST: Hominidae-; Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: Hominidae- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

GE: USA- (North-America, Nearctic-region)

MI: ACTIVE-WITHDRAWAL-OF-SUPPORTIVE-CARE; BRAIN-DEAD; CRITICAL-ILLNESS; FAILED

-CARDIOPULMONARY-RESUSCITATION; RIGHT-TO-DIE; STATISTICSAN: 199497049414

[Determination of brain death in Intensive Pediatric Therapy]

OT: Original Title

L'accertamento della morte cerebrale in Terapia Intensiva Pediatrica.

AU: Author

Villani A; Onofri A; Bianchi R; Catena S; Cori M

AF: Author Affiliation

Servizio di Anestesia e Rianimazione, Ospedale Pediatrico Bambino Gesu di Roma, Italia.

SO: Source

La Pediatria medica e chirurgica : Medical and surgical pediatrics, 1998 Jan-Feb, 20(1):19-23

IS: ISSN

0391-5387

AB: Abstract

The subject of this paper is to report our experience in the determination of brain death in infants and children. We have retrospectively examined the incidence of brain death occurred in 504 consecutive children admitted to multidisciplinary pediatric ICU at "Bambino Gesu" Hospital of Rome during the years 1994 to 1997. According to current Italian Law, brain death was declared in 8 children (1.6%), whose primary diagnoses were: Meningitis (3 cases); nontraumatic intracerebral hemorrhage (2 cases); medulloblastoma (1 case); brain metastasis of neuroblastoma (1 case); SIDS (1 case). All brain death diagnoses were made using clinical criteria and confirmatory tests. A difficult problem was met in achieving the required Pa-CO₂ values higher than 60 mmHg without unduly lowering O₂ saturation. In order to obtain easily this objective we have recently switched the ventilator to intermittent mandatory volume ventilation at a rate of five stroke per minute using a FiO₂ of 1 before starting the apnea test. In infants younger than one year the required cerebral circulatory arrest was documented in the pericallosal artery by doppler ultrasonography performed through the fonticuli cranii. The absence of cerebral blood flow was recorded for one to five days after clinical and electroencephalographic diagnosis of brain death, causing an unnecessary prolonged rianimative support. This also confirms that in young infants brain death may occur without a marked increase of intracranial pressure. Last, but not least, we believe that particular attention must be paid to psycho-emotional conditions of parents as well as of intensivists and nurses especially when brain death must be assessed in children.

LA: Language

Italian

PY: Publication Year

1998

PT: Publication Type

Journal Article

CP: Country of Publication

ITALY

DE: Descriptors

Animal; Brain Death: diagnosis; Child; Child, Preschool; English Abstract; Hamsters; Human; Infant; Infant, Newborn; Intensive Care

LR: Last Revision Date

20001218

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Pediatric Abstracts

Index Medicus
AN: Accession Number
9658416

TI: Death: A persistent controversial state.

AU: Wildes-Kevin-W

AD: Georgetown Univ., Washington, DC, USA

SO: Kennedy-Institute-of-Ethics-Journal. 1996; 6 (4) 378-381.

PY: 1996

DT: Journal-Article

IS: 1054-6863

LA: English

MC: Behavior-; Human-Ecology (Anthropology-); Pathology-; Philosophy-and-Ethics

ST: Hominidae-: Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

MI: BIOETHICS-; CARDIOPULMONARY-DEATH; CULTURAL-EVENT; DEATH-;

DEFINITION-;

MEDICAL-EVENT; PERSISTENT-CONTROVERSIAL-STATE; PHILOSOPHYAND-

ETHICS;

RELIGIOUS-EVENT; SOCIAL-EVENT; SOCIOLOGY-; WHOLE-BRAIN-DEATH

AN: 199799363934

Brain-death and pregnancy.

AU: Author

Wuermeling HB

AF: Author Affiliation

Institut für Rechtsmedizin, Friedrich-Alexander-Universität,
Erlangen, Germany.

SO: Source

Forensic science international, 1994 Dec 16, 69(3):243-5

IS: ISSN

0379-0738

AB: Abstract

This paper examines the case of a pregnant woman killed by a traffic accident (brain-death), but under intensive care and discusses legal and ethical aspects. Ceasing intensive care was, legally, neither necessary nor forbidden. Ethically, the right to life in a defensive meaning is unlimited, however, in the sense of a right to participate, it is dependent of the circumstances, which include economy as well as the chances of the child.

LA: Language

English

PY: Publication Year

1994

PT: Publication Type

Journal Article

CP: Country of Publication

IRELAND

DE: Descriptors

Adolescence; Brain Death; Case Report; Decision Making; Ethics,
Medical; Female; Human; Intensive Care; Pregnancy; Pregnancy
Complications

LR: Last Revision Date

20001218

UD: Update

20020109

RO: Record Owner

National Library of Medicine

SF: Subfile

Index Medicus

AN: Accession Number

7860009

TI: Preenhanced computed tomographic findings in brain death.

AU: Yoo-Heon; Kim-In-One; Wang-Kyu-Chang {a}; Cho-Byung-Kyu

AD: {a} Div. Pediatr. Neurosurgery, Seoul Natl. Univ. Child. Hosp., 28 Yongon-dong, Chongno-gu, Seoul 110-744, South Korea

SO: Journal-of-Korean-Medical-Science. 1993; 8 (4) 305-307.

PY: 1993

DT: Article-

IS: 1011-8934

LA: English

MC: Cardiovascular-System (Transport-and-Circulation); Morphology-; Neurology-(Human-Medicine, Medical-Sciences); Pathology-

ST: Hominidae-; Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

OR: human- (Hominidae-)

TN: animals-; chordates-; humans-; mammals-; primates-; vertebrates-

MI: BRAIN-BASE-DENSITIES; CASE-STUDY; DEEP-VENOUS-STRUCTURES;

MAJOR-ARTERIAL

-VESSELS; POTENTIAL-DIAGNOSTIC-APPLICATION

AN: 199497008114

TI: CARDIOTOCOGRAPHIC AND SONOGRAPHIC FINDINGS IN TWO CASES OF ANTENATALLY DIAGNOSED INTRAUTERINE FETAL BRAIN DEATH.

AU: ZIMMER-E-Z {a}; JAKOBI-P; GOLDSTEIN-I; GUTTERMAN-E
AD: {a} DEP OBSTET GYNECOL 'B', RAMBAM MED CENTER, FAC MED,
TECHNION, HAIFA, ISR

SO: Prenatal-Diagnosis. 1992; 12 (4): 271-276.

PY: 1992

DT: Article-

IS: 0197-3851

LA: ENGLISH

AB: Intrauterine fetal brain death is a rare cause of a fixed fetal heart rate pattern. Seven cases have been previously reported in the literature, but only two of them were diagnosed prenatally and all the newborns died soon after delivery. Two additional cases of antepartum diagnosis of intrauterine fetal brain death, managed expectantly, are reported. We had the unique opportunity to document progressive sonographic cerebral changes during the follow-up period, following the neurological event, while the fetus continued life and growth in utero. The cardiographic and sonographic findings suggesting intrauterine fetal brain death were a prolonged fixed fetal heart rate, even following a vibroacoustic and contraction stress test; an atonic fetus without breathing and body movement; and the appearance of hydramnios and the development of ventriculomegaly.

AI: Y

ST: Hominidae-; Primates-, Mammalia-, Vertebrata-, Chordata-, Animalia-

TN: Animals-; Chordates-; Humans-; Mammals-; Primates-; Vertebrates-

MI: HUMAN FIXED HEART RATE PATTERN ATONIC FETUS HYDRAMNIOS
VENTRICULOMEGALY

MJCC: CC25503 (Developmental-Biology-Embryology-Pathological)

CC12504 (Pathology

-General-and-Miscellaneous-Diagnostic)

CC12510 (Pathology-General-and

-Miscellaneous-Necrosis)

CC14506 (Cardiovascular-System-Heart

-Pathology)

CC15010 (Blood-Blood-Forming-Organs-and-Body-Fluids-Other

-Body-Fluids)

CC20506 (Nervous-System-Pathology)

BC: BC86215 Hominidae

AN: 199294026053

UD: 1992