



" SIXTH ANNUAL FORENSIC MEDICINE STUDENTS SCIENTIFIC ONLINE CONFERENCE "

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Abstract

1-Abstract of electrical Burn:

Electrical burns are due to a sudden and extreme increase of the tissues temperature causing severe and progressive tissues damage, even the deep muscular planes and the bones. When these lesions are associated with rhabdomyolysis, a compartment syndrome develops leading, if it is not treated, to a irreversible lose of the extremity. The treatment of electrical burn victim on a high voltage includes aggressive fluid resuscitation, serial assessment of distal vascular integrity and emergency surgery for fasciotomies along with a muscle compartment exploration.

2-Abstract of Radiation Burn:

Radiation burn can occur with diagnostic or therapeutic use of ionizing radiation. A nonintentional radiation burn is relatively uncommon. Skin has a specific tolerance to radiation, above which different grades of radiation burn can occur. Being a rare and less studied problem, no precise guideline is present for its management. Because of few unresolved issues in the pathophysiology of deep radiation burn, its management is difficult. To date no specific guidelines are present for the treatment of radiation burn.

3-Sodomy

The sodomy has its name from the historical village (sodom) ...where the first sodomy happened....

It's an abnormal sexual behaviour between the same sex(both males) ..one of them is active and the other one is passive ...

Usually it's related to psychic problems and child abuse and sometimes suicide

The sodomy is legal in some countries ...where they have (sodomy's laws)

4-Abstract of neonatal asphyxia:

Perinatal asphyxia is a lack of blood flow or gas exchange to or from the fetus in the period immediately before, during, or after the birth process. Perinatal asphyxia can result in profound systemic and neurologic sequelae due decreased blood flow and/or oxygen to a fetus or infant during the peripartum period. When placental (prenatal) or

pulmonary (immediate post-natal) gas exchange is compromised or ceases altogether, there is partial (hypoxia) or complete (anoxia) lack of oxygen to the vital organs. This results in progressive hypoxemia and hypercapnia. If the hypoxemia is severe enough, the tissues and vital organs (muscle, liver, heart, and ultimately the brain) will develop an oxygen debt. Anaerobic glycolysis and lactic acidosis will result. Neonatal hypoxic-ischemic encephalopathy refers specifically to the neurologic sequelae of perinatal asphyxia. This activity reviews the causes of birth asphyxia, its pathophysiology and highlights the role of the interprofessional team in its management.

5-Abstract of battered child:

Child abuse and neglect is an increasing social problem. The battered-child syndrome, a clinical condition in young children, who have received serious physical abuse, is a frequent cause of permanent injury or death. The syndrome should be considered in any child exhibiting evidence of fracture of any bone, subdural hematoma, failure to thrive, soft tissue swellings or skin bruising, in any child who dies suddenly, or where the degree and type of injury is at variance with the history given regarding the occurrence of the trauma. Psychiatric factors are important. Physicians have a duty and responsibility to the child to require a full evaluation of the problem and to assure that no expected repetition of trauma will be permitted to occur.

6- Abstract of Malpractice:

-Among hospitalized patients worldwide , 3-16% suffer injury as a result of medical intervention , the most common being the adverse effects of drugs . although medical malpractice mostly resulted in severe injuries , they are preventable . this indicates the great need for more effort to increase patient safety in all health care settings.

-In This presentation, we discussed the definition of malpractice, its causes, criteria, different types of clinical errors , investigation and Also the recommendations

7-Abstract of medical consent:

Consent is the choice of the patient which also gives him the right to refuse.

- Consent can be given only by a mentally sound adult who knows the consequences of the giving the consent as well as the consequences of the consenting to the procedure in question.

- Consent should include not only the procedure the patient is consenting to but also the alternative modalities as well as the common well-known consequences of procedure in question.

IF in doubt, take a written
informed consent

8- Abstract of medical ethics:

Medical practice is controlled by governmental laws and regulation. The way that physician conduct their work is governed by 'code of conduct' that is not imposed by law. This code which controls professional behavior through self-regulation is called 'MEDICAL ETHICS' .

In This presentation, we discussed the definition of medical ethics, Oath, different types of medical ethics and also the recommendations.

Presentations

Electrical burn:

Definition:

- Electrical injuries are when high-energy current travels through the body due to contact with an electrical source.
- Of all burns treated in a medical setting, 4% to 5% are electrical.

Mechanism:

- Injuries occur due to either the flow of current through the body, arc flash, or clothing that catches fire. With the former two, the body converts electricity to heat, which results in a thermal burn. It is important to consider that the outward appearance of an electrical burn does not accurately predict the true extent of the injury, as internal tissues or organs may be much more severely burned than the skin.
- Ohm's Law states that current is directly proportional to voltage and inversely proportional to resistance. All three contribute to the pathophysiology of how electricity creates burns to the body. Contributing factors to the severity and pattern

of injury include body position compared to the direction of current entering the body and duration of exposure to current.

Electrical burns are divided into:

1. Low-voltage injury (< 1000 V)
2. high-voltage injury (> 1000 V)
3. Thermal injury due to electrical flash versus a current flowing directly through the body.

1. Low voltage electrical burn:

- Low voltage electric current results in 2 well-circumscribed deep partial-thickness or full-thickness electrothermal burns:

1. Contact burn at entry site (eg, hands, skull)
2. Exit wound (eg, heels in contact with the ground).

2. High voltage electrical burn:

- High voltage injury may be due to direct contact or flashing.

- Direct contact, high-voltage injury causes a painless, full-thickness, indented, yellowish-grey skin burn that is sometimes accompanied by central necrosis.

- Flashing high voltage injury can cause a superficial burn, a partial thickness burn, or devastating full-thickness injury brought about by an electric arc.

- An electric arc or spark, including a lightning strike, is produced between a highly charged source and the ground, reaching temperatures of up to 2500C.

- This high temperature directly burns the skin.

- The spark ignites clothing; the ensuing flames also burn the skin.

- Electrical current flowing through body tissues cause electrothermal heating.

- It results in kissing burns.

2. High voltage electrical burn:

- A kissing burn is an electric arc generated between two skin surfaces facing each other and sandwiching a joint, typically the elbow and knee flexures. The arc crosses

the flexor crease and burns the two 'kissing' skin surfaces causing vast underlying tissue destruction.

- Assessment of cutaneous involvement alone may underestimate the extent of underlying tissue damage.

Medicolegal importance:

- It is important to note that the term “electrocution” refers only to a person who is killed as a result of exposure to electricity. Thus, someone who is exposed to electricity but survives has not been “electrocuted.”

PM picture:

- The cutaneous injuries.
- The muscle effect.
- The body is pale if the death due to
- Dark blue-red post-mortem hypostasis in congestive death.
- Non-specific epicardial petechiae if the death is due to arrhythmia or plural petechiae if the
- death is due to intercostal muscles paralysis.

Causes of Death:

- Complications from electrical injuries are similar to those of other thermal burns, such as infection (which can progress to sepsis), compartment syndrome, and rhabdomyolysis (due to extensive muscle damage from internal burns). Additionally, one may have associated injuries from being thrown from the electrical source or from falling from a height (roof, bucket truck, ladder) due to the electrical shock, and these injuries (long bone fractures, spinal fractures, lacerations, pneumothorax, etc.) should be assessed and treated appropriately.
- Cardiac complications can occur. One can have an arrhythmia, possibly even a fatal arrhythmia, at the time of the injury. Anyone who experiences an arrhythmia or any chest pain or other typical cardiac-related symptoms is also at risk of arrhythmia in the 24 to 48 hours following the injury. Thus these patients should be kept on a cardiac monitor at all times. Any high voltage injury should have continuous cardiac monitoring for a minimum of 8 hours.

Radiation Burn

Radiation burns are therapeutic administration and are a result of free oxygen radical formation

Radiation therapy is a cancer treatment. It uses X-rays to destroy cancer cells and shrink malignant tumors. Radiation therapy is effective on many different types of cancer.

A common side effect is a skin condition called radiation dermatitis, also known as X-ray dermatitis or radiation burns. Concentrated exposure to radiation causes painful marks on the skin. High exposure to X-rays during diagnostic medical imaging or radiotherapy can also result in radiation burns. As the ionizing radiation interacts with cells within the body—damaging them—the body responds to this damage, typically resulting in erythema—that is, redness around the damaged area.

- Nearly two-thirds of people with cancer are treated with radiation therapy. Of those people, roughly 85 percent experience moderate-to-severe skin reactions.
- These typically occur within the first two weeks of treatment and can last for several years after therapy is completed.
- During radiation treatment, concentrated X-ray beams pass through the skin and produce irradiated free radicals. This causes:
 - tissue damage
 - DNA damage
 - inflamed skin (affects both the epidermis and dermis, or outer and inner layers of skin)
 - As radiation treatment continues, the skin doesn't have enough time between doses to heal. Eventually, the affected area of skin breaks down. This causes pain, discomfort, and rashes. redness -peeling -swelling -death of skin cells

Radiation damages the stomach and intestines, blood vessels, and bone marrow, which makes blood cells. Damage to bone marrow lowers the number of disease-

fighting white blood cells in the body. As a result, most people who die from radiation sickness are killed by infections or internal bleeding.

There are certain precautions you can take to prevent more serious symptoms of radiation burns.

Lots of things can make sore, crumbling, dry skin worse. As a general rule, try to avoid scratching and picking at affected skin perfume, deodorant, and alcohol-based lotion scented soap

swimming in pools or hot tubs with chlorine spending too much time in the sun

Keeping your skin clean, dry, and moisturized can go far as an overall prevention plan for radiation burns.

1. Identification of the deceased—Though identification of the deceased is difficult when the body is completely- burnt

Sex of the deceased: Prostate and nulli-parous uterus will not get burnt even at very high temperature and could help in sex identity.

Age of the deceased: Usually established by the teeth and ossification of the bones.

2. Whether the burns are antemortem or postmortem?

3. Whether the burns are the cause of death or not?

4. Whether the burns are suicidal, accidental or Homicidal

5. Self-inflicted burns for false accusation—these burns

6. Spontaneous combustion and preternatural combustion— occasionally cases are reported of burns occurring due to the natural gases evolved in the intestine

7. Age of burn

Immediately after burn, redness appears

Within one hour, vesication (blister).

6-8 hours :-epidermis, dermis shows inflammatory exudate.

72 hours:- exudate forms a dry brown crust

12-24 hours:-exudate begins to dry.

2-3 days:-pus may form due to infiltration of WBCs

4-6 days:-superficial slough separates out.

1-2weeks:-deeper sloughs separates out.

2-3weeks:- granulation tissues begins to cover the surface of burns.

3-4weeks:- scar is formed or wound is healed.

Sodomy

- Definition and Mechanism :
- Sodomy: Derives its name from the historical city of (Sodom).
- Abnormal sexual behavior by anal intercourse between two men (Male homosexuality), the offender (Active agent) and (Passive agent).
- The same act between male & female called (Buggery).
- It's a type of Sexual offense even if there's agreement and punishable for both.

Medicolegal importance of sodomy

1/there is variety of legality of sodomy according to the country...as in some countries it's legal as in

2/ sodomy crimes and habituation have high incidence of suicide psychic problems so sodomy victims need to have Psychiatric counseling and treatment.

European countries and US and ..and in others is not legal like India and Arab countries.

- 3/ sodomy crimes have strong relation to psychic problems so sodomy victims need to have Psychiatric counseling and treatment.
- 4/ in the countries where the sodomy is crimes the Local authorities must be informed if there's sodomy signs after examination .
- 5/ sodomy has high incidence with the child abuse.

Medicolegal Examination of sodomy victim:

- Examination of clothing for damage, stains of blood/semen.

- Two swabs should be taken before examination (External anal swab from Perianal area- from the lower rectum).
- Presence of semen in the anus or rectum is evidence of sodomy.

Acute Sodomy

(Victim of sodomy)

- Clinical Picture: (Recent anal intercourse) :
- Bruises.
- Fissures and tears of mucosa.
- Anal pain and tenderness.
- Anal hemorrhage or hematomas.
- Sphincter spasm.

Chronic Sodomy

(Habitual passive agent)

- Clinical Picture: (Repeated anal intercourse)
1. Funnel-shaped anus.
 2. Permanently dilated anus.
 3. Weak or lost anal sphincter
 4. Easily exposure of rectal mucosa on separation of buttock
 5. Perianal skin thickened or keratinized
 6. Chronic(old) anal fissures

Examination of habitual sodomite:

- Anus:
- Dilated, funnel-shaped
- Loss of rugosity of mucous membrane
- Old fissures/sinuses

Neonatal asphyxia

DEFINITION

Neonatal asphyxia defined as delay of >1 minute in onset of spontaneous respiration at birth, as the state producing a combination of systemic hypoxemia, hypercapnia, and metabolic acidosis that may occur before and during birth and the neonatal period, Compromised placental or pulmonary gas exchange in fetuses and neonates.(1)(2)

PATHOPHYSIOLOGY {MECHANISM}

The pathophysiology of asphyxia generally results from interruption of placental blood flow with resultant fetal hypoxia, hypercarbia, and acidosis. Circulatory and noncirculatory adaptive mechanisms exist that allow the fetus to cope with asphyxia and preserve vital organ function. With severe and/or prolonged insults, these compensatory mechanisms fail, resulting in hypoxic ischemic injury, leading to cell death via necrosis and apoptosis. Permanent brain injury is the most severe long-term consequence of perinatal asphyxia. The severity and location of injury is influenced by the mechanisms of injury, including degree and duration, as well as the developmental maturity of the brain(3,4,5)

MEDICOLEGAL IMPORTANCE

- 1) Identify manner of death which is usually accidental
- 2) Aid in ending the neonate life beneath the term of euthanasia
- 3) rely on the MLI of the umbilical cord which is:
 - A. determine the baby was alive or still birth by observing changes around the base hyperemic then ulcerated then stump is called and after 2 weeks it finally forms healing wound
 - B. homicidal or strangulated cord
 - C. denote the age of the fetus (7)

Asphyxial lesions at autopsy

☒☒face:

1. Petechial hemorrhages: These may occur on the face, on the conjunctivae (the thin coverings of the eye and lining of the inner aspects of the eyelids); behind the ears and on the inner aspect of the lip

2. Facial congestion

- Lung

1. The deep breaths result in masses of epithelial squames and amniotic debris being aspirated into the bronchi, bronchioli and acini. These may be visible for many weeks.

2. pleural and epicardial petechiae

3. intense congestion of alveolar capillaries

4. meconium aspiration

☒☒Brain

1. congestion, swelling

2. typical patterns of hypoxic-ischemic encephalopathy are evident if the infant survives for 24 – 48 hours or more.

☒☒Kidneys

1. acute congestion of the medulla

2. acute tubular necrosis

3. adrenal hemorrhage seen particularly in breech delivery(8,9)

Cause of death in neonatal asphyxia

1) fetal distress

2) cerebral palsy

3) ADHD

4) Developmental delays

5) seizure disorders

6) Hypoxic-ischemic-encephalopathy

7) periventricular leukomalacia

8) paralysis(10)

Recommendations:

1. Counselling the parents on possible developmental problems.
2. Encourage early physiotherapy and speech and language therapy.
3. Prevention of birth asphyxia and prevention of it's complications when it occurs:

☑education of masses about it

☑identify risks in pregnancy

Battered child.

Definitions:

Child abuse: words or overt actions that cause harm, potential harm, or threat of harm to a child.

Battered child syndrome: Physical violence against young children. or: non-accidental injuries sustained by a child as a result of physical abuse, usually inflicted by an adult caregiver (parent, foster parent or guardian).

Battered child: Is a child who shows clinical or radiographic evidence of lesions that are frequently multiple and involve mainly the head, soft tissue, the long bones, and the thoracic cage and that cannot be unequally explained.

Clinical picture of physical trauma in which the explanation of injury was not consistent with the severity and type of injury observed, also History is helpful.

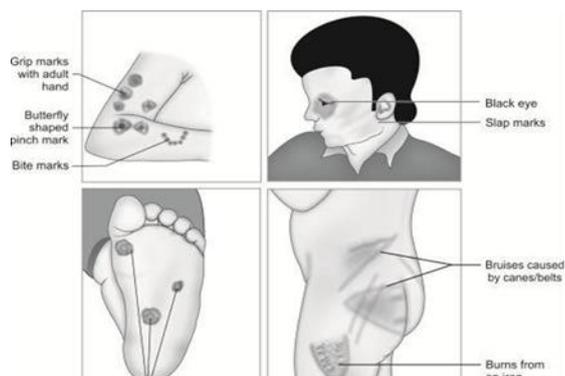
Types of injury or clinical findings:

Multiple bruising over entire body, (different color shadow= different dates of origin).

Scaring, burns, bite marks, lacerations.

Fractured/Missing teeth.

Eye injuries.



Radiographic evidence of previous injury.

Repairing fracture lines of skull, mandible, ribs or limbs.

Causes:

Some result from punishment that is inappropriate for child's age, condition or level of development, such as:

Burns.

Slapping.

Beating with stick or belt.

Lack of qualities necessary for child care.

Stress, psychological or mental health problem, or immaturity of a caregiver.

Personal problems.

Alcohol or drug abuse.

Characters of the family:

1. Low education and economic life.
2. Big family number
3. Family with increase stressful life events.

Characters of the parents:

1. Young age
2. Emotionally immature and aggressive
3. Divorce
4. They are themselves battered children

Characters of the child:

1. An annoying ,hyperactive child,
2. Persistently soiling himself
3. Unwanted child

Diagnosis of child physical abuse:

Different types of injuries at the same time.

The injuries are usually of different ages.

Delay in seeking medical advice.

Discrepancy between the history given by the parents and the physical findings on examination.

Variability in parental explanation of these injuries.

Cause of death:

Head injuries: the most frequent cause of death commonly subdural and subarachnoid hemorrhages.

Injuries of the abdomen:

-intestine: rupture

-mesentery: tears -spleen: rupture

-liver: lacerations.

Burns: cause shock, dehydration and

Infection.

Role of

the physician in cases of child abuse:

Medical evaluation, diagnosis, and treatment of cases of child abuse.

Reporting cases of child abuse to the specific authority.

Medical documentation of information and evidence gathered during the examination

Medical Malpractice

What is Medical Malpractice?

Medical malpractice occurs when a hospital, doctor or other health care professional, through a negligent act or omission, causes an injury to a patient. The negligence might be the result of errors in diagnosis, treatment, aftercare or health management.

Mechanism of malpractice : malpractice can be done by omission (negligence) ,by commission (deliberately) or due to incompetence (lack of reasonable degree of skill).

An Act Of Medical Malpractice Usually Has Three Characteristics.

Firstly, it must be proven that the treatment has not been consistent with the standard of care , which is the standard medical treatment accepted and recognized by the profession.

Secondly, it must be proven that the patient has suffered some kind of injury due to the negligence . In other words , an injury without negligence or an act of negligence without causing any injury cannot be considered malpractice

Thirdly, it must be proven that the injury resulted in significant damages such as disability , unusual pain, suffering , hardship , loss of income or A significant burden of medical bills

To be considered medical malpractice under the law, the claim must have the following characteristics:

- 1) Failure to provide a proper standard of care
- 2) An injury results from negligence
- 3) The injury must have damaging consequences

Top Causes Of Medical Malpractice

- 1) Surgical Errors
- 2) Misdiagnosis Or Failure To Diagnose
- 3) Prescription Medication Errors
- 4) Hospital Acquired Infections
- 5) Child Birth Injury
- 6) Anesthesia Errors

Types of error and malpractice

- ❑ Misdiagnosis or failure to diagnose
- ❑ Unnecessary or incorrect surgery
- ❑ Premature discharge
- ❑ Failure to order appropriate tests or to act on results

- ❑ Not following up
- ❑ Prescribing the wrong dosage or the wrong medication
- ❑ Leaving things inside the patient's body after surgery

Investigation of Medical Misadventures

❑❑ These include the following:

- 1) In cases of the unexpected death of patients especially during medical intervention, the appropriate legal authority (e.G. Public prosecution, police) should be notified.
- 2) All medical devices such as monitors and intravenous pumps , transfusions and so on , should be secured.
- 3) All premortem specimens of the patient should be retained for further analyses .
- 4) All patient fluids should be secured for further analyses .
- 5) Prior to autopsy all medical records of the patient should be available for the pathologist
- 6) A complete postmortem examination should be carried out including the following :
 - ❑ Prior to autopsy , postmortem imaging may be necessary in some cases.
 - ❑ In cases of death following very specialized operations an experienced surgeon should attend the autopsy.
 - ❑ Special preparations may be necessary .
 - ❑ Photographs of the operation site should be taken.
 - ❑ Specimens for further analyses (i.E. Histology, toxicology, bacteriology/virology and biochemistry) must be taken

Demography

Medico-legal action across multiple countries is more common against male than female doctors (odds ratio of 2.45)

A 2016 survey of US physicians found that 8.2 percent of physicians under the age of forty reported having been sued for malpractice during their careers , with 49.2 percent of physicians over the age of 54 reporting

Medical Consent

Definition:

Free and voluntary agreement, approval or permission for compliance to perform some act.

Consent is valid only if it is given after knowing the nature and consequences of the consent and those of the act for which consent is given.

Situations requiring Consent in medical practice:

1. Examination of the patient for the purpose of diagnosis, investigation and subsequent treatment.
2. Examination of the living person for medico-legal purposes.
3. Any major/minor operative procedures.
4. Abortion, organ transplantation, blood donation/ infusion.
5. Pathological autopsy.

Validity of Consent

The valid consent must be:

- 1- Freely given
- 2- Taken only for legal procedures. The consent is invalid if obtained for an illegal procedure as in criminal abortion.
- 3- Given by sane person
- 4- Given by person above age of 18
- 5- Given by fully conscious person. In emergencies, as when the patient is in coma, the practitioner has to carry out procedures necessary to preserve life, but no more.

6- Must be informed, i.e. the facts in consent must be clearly stated, whether documented or verbal, for:

- a. Indications
 - b. Possible complications (especially major and frequent ones)
- 7- Consent must be free:
- a. Given with no fraud
 - b. Given with no fear, i.e. must not be obtained by any force or blackmail.

Forms of Consent

1- Implied (or requested): by the behavior of the patient, as when the patient attends the physician or calls the doctor to his house complaining of illness.

2- Oral consent: It should be sought immediately before:

- a. Examinations (rectal or vaginal)
- b. Minor procedures (such as taking blood samples).

A third person should be present to protect the practitioner from any accusations of indecent behavior assault.

3- Written consent: it is necessary before

- a. Major operations and procedures
- b. Medicolegal examinations, e.g. in rape, criminal abortion.

4- Obligatory consent.

Medicolegal Importance of the Medical Consent

☐ The physician should understand the circumstances in which the consent must be taken in order to protect himself legally.

☐ He should know the different forms of consent in order to verify the appropriate legal one.

If a physical examination is conducted without the patient's consent, it could constitute a criminal offense (or assault) or a trespass upon the patient.

The Ethical Principles of Informed Consent

Before administering any sort of medical treatment, doctors have a legal responsibility to thoroughly explain the procedure and obtain the consent of the patient. Informed consent is based on a number of ethical principles the medical community adheres to with the ultimate goal of maintaining integrity, excellence and respect. Whether you are a doctor or patient, it is important to understand the full implications of informed consent.

Principle of Full Disclosure

Informed consent requires that the patient be made fully aware of his diagnosis, the nature of the treatment, the potential benefits and risks, alternative treatments and the potential benefits and risks of forgoing treatment. If the doctor omits any of this information, whether it be unintentional or purposeful, he has violated the patient's right to informed consent.

Principle of Respect for Autonomy

A doctor must acknowledge that each of his patients has the right to self-determination. This means that after receiving complete disclosure, the patient (or a guardian) has the right to accept or reject medical advice. Embracing individual freedom is one of the defining qualities of humanity.

Principle of Respect for Persons

Health care providers must exhibit respect for their patients, regardless of their ability to make rational decisions. Even among individuals with a reduced ability for self-determination, the protections intended by and related to informed consent still apply. This includes the axiom that doctors should do no harm.

Principle of Subsidiarity

The principle of subsidiarity holds that a patient has a right to be involved in any and all medical decisions that affect them. This is foundational to the right of informed consent.

The Principle of Integrity and Totality

In treating their patients, doctors must take into account the overall well-being of their patient. This includes viewing every individual as a complete being with will, intellect and conscience. Failure to provide patients with informed consent reduces them to a collection of health issues, undermining their identity and humanity.

Circumstances in which the consent is not required

In these conditions the examined person cannot refuse the examination, thus consent is obligatory.

This includes:

- 1- School medical examination for students
- 2- Medical examination of food-handlers
- 3- Medical examination on admission to a prison
- 4- Medical examination in contest of military service
- 5- Pre-employment medical examination
- 6- On the probation order of a court
- 7- Immigrants at ports and airports

Documentation of Consent

The process of Informed Consent concludes with the patient's consent

(or refusal). This consent is documented in a signed "consent form" that is entered in the patients medical records.

Difficulties With Informed Consent

Problems physicians may face:

- i. Use of technical language
- ii. Uncertainties intrinsic to all medical information
- iii. Worried about harming or alarming the patient
- iv. Hurried and pressed by multiple duties

☒Problems patients may face:

- ii. Limited knowledge
- iii. May be inattentive or distracted
- iv. Overcome by fear and anxiety
- v. Selective hearing because of denial, fear, or preoccupation with illness

Medical Ethics

الظروف [7] أقسم بالله العظيم أن أراقب الله في مهنتي، وأن أصون حياة الإنسان في كافة أدوارها، في كل والأحوال باذال وسعي في استنقاذها من الهلاك والمرض والألم والقلق، وأن أحفظ للناس كرامتهم، وأستر عورتهم، وأكتم سرهم، وأن أكون على الدوام من وسائل رحمة الله، باذال رعائتي الطبية للقريب والبعيد، للصالح والخطي، والصديق والعدو، وأن أثابر على طلب العلم، أسخره لنفع الإنسان لأذاه، وأن أوقر من علمي، وأعلم من يصغرنني، وأكون أاخا لكل زميل في المهنة الطبية متعاونين على البر والتقوى، وأن تكون حياتي مصداق إيماني في سري وعلانيتي، نقية مما يشينها "تجاه الله ورسوله والمؤمنين، والله على ما أقول شهيد

What is Medical Ethics?

Ethics is defined as:

the study of morality, careful and

systemic reflection on and analysis of moral decisions and behavior.

Principles of Biomedical Ethics:

- I. Principle of Autonomy: respect patient's right to refuse or accept treatment .
- II. Principle of Beneficence: the practitioner should act in the best interest of the patient
- III. Principle of Non-maleficence: avoid inflicting physical or emotional harm on the patient .
- IV. Principle of Justice: equality of treatment to all patients .

The moral duties of the doctor

1-To help ,cure

2- To promote and protect the patient's health

3- The duty to confidentiality, to protect the patient's life and respect the patient's autonomy

4- The duty to protect privacy and to respect the patient dignity

The moral rights of the patient

1- The right to high quality medical service, to decide, be informed and to privacy

2- The right to autonomous choice and health education

3- The right to dignity

Commitments as a professional medical student

1- Respect for professors, preceptors, peers and all members of the health care team

2- Respect for cadavers and anatomical specimens in the anatomy lab

3- Respect for patients and their families

4- Respect for patient confidentiality

5- Respect for administrative, support staff and the core value of professionalism

Professionalism includes:

1- altruism

2- accountability

3- excellence

4- duty

5- integrity and honor

6- respect for others

The Main Laws and Regulations that Govern Medical Profession in Egypt

I- General Laws of the state:

a- The Penal code

b- The Criminal law

c- The Civil law

d- The Code of Criminal procedures

II-Laws and Regulations governing medical practice:

a- Profession Ethics Regulations 238/2003
b- Law No. 415/1954 for practice of medical profession

Laws and regulations basically involve 3 domains

- Physician-patient relationship
- Physician-physician relationship
- Physician-society relationship

1-Physician Patient Relationship

>Physicians must know that they are in position of trust and confidence of the patient and his family.

>If the physician knows that he cannot accomplish a cure, he must refer the patient to another specialist.

>A physician is not required by the law to accept any patient. However, he cannot refuse examining the patient in the emergency situations

The main ethical and legal issues in Physician-Patient-Transaction include:

A-Medical consent

emergency life-

>This refers to the agreement of the person about any medical interference including examination, investigation and treatment after being fully informed about the potential benefits and risks. This rule is subjected to exception in case of saving measures.

Forms of medical consent:

1-Implied consent

>Most of medical practice conducted under the principle of "implied consent".

>Implied consent covers only basic clinical methods of examination such as history taking, observation, palpation and auscultation.

B- Professional Secrecy:

- Physicians have no right to disclose any secret concerning their patient.
- Publication of patients' name or photographs in scientific journals is considered a disclosure of secrecy.
- Medical men must keep the professional secrecy.

- However, disclosure of professional secrecy is permitted in the following conditions:

1. On the request of the patient himself or his guardian.

2. For the sake of the patient.

3. To protect the community from dangerous diseases or crimes:

A. Highly infectious disease.

B. Illegal procedures as illegal abortion.

C. Suspected crimes.

D. Births and deaths.

4. For the sake of the doctor when he is accused of malpractice.

The moral duties of the doctor:

1-To help ,cure

2- To promote and protect the patient's health

3- The duty to confidentiality, to protect the patient's life and respect the patient's autonomy

4- The duty to protect privacy and to respect the patient dignity ¶¶The moral rights of the patient:

1- The right to high quality medical service, to decide, be informed and to privacy

2- The right to autonomous choice and health education

3- The right to dignity

Commitments as a professional medical student:

1- Respect for professors, preceptors, peers and all members of the health care team

2- Respect for cadavers and anatomical specimens in the anatomy lab

3- Respect for patients and their families

4-Respect for patient confidentiality

5- Respect for administrative, support staff and the core value of professionalism

In cases of medical malpractice , the patient has the burden of proof for four elements:

- The physician owed the patient the duty of care

- The physician's care fell below an acceptable standard

- The plaintiff had sustained an injury or damages
- The negligence was an approximate cause of the injury or damages

☐☐Some examples of malpractice :

- 1.Prescribing an incorrect type or dose of drug
- 2.Incompatible blood transfusions
- 3.Brain damage in the new born due to hypoxia from prolonged labor

Professional misconduct

If a practitioner is guilty of dishonorable or disgraceful conduct. The medical council takes a disciplinary action against him. The action may be:-

- 1) Alarm
- 2) Warning
- 3) Blame
- 4) Temporary revocation of his name from health registry

**Examples of professional misconduct:☐☐1) Receiving or giving commission.

- 2) sexual or financial exploitation of the patients.
- 3) Improper association with drug manufacturing companies.

Recommendations

Electrical burn

1. Cover outlets with plastic safety caps so children don't stick something into them.
2. Use only properly insulated wires.
3. Keep wires out of children's reach so they don't bite them.
4. Keep all appliances away from bathtubs, toilets, and pools.
5. Install ground fault circuit interrupter outlets (GFCIs) in your home that shut off the flow of electricity if the current is taking an unintended path.

6. Stay at least 20 feet away from overhead power lines even if they have fallen. These lines usually aren't insulated.
7. Hire licensed electricians for wiring work.
8. Follow safety precautions if lightning is in your area

Sodomy

- 1/Early follow up for psychological behaviors of children
- 2/sodomy law must be more effective in the countries which have sodomy laws
- 3/Countries which have no laws for sodomy must change their attitude and have laws for sodomy

Neonatal asphyxia

- 1.Counselling the parents on possible developmental problems.
- 2.Encourage early physiotherapy and speech and language therapy.
- 3.Prevention of birth asphyxia and prevention of it's complications when it occurs:
education of masses about it
identify risks in pregnancy

Battered child

Recognizing the potential for child abuse and the seeking or offering of intervention, counseling, and training in good parenting skills before battered child syndrome occurs is the best way to prevent abuse.

The use of educational programs to teach caregivers good parenting skills and to be aware of abusive behaviors so that they seek help for abusive tendencies is critical to stopping abuse.

Support from the extended family , friends, clergy, or other supportive persons or groups may also be effective in preventing abuse.

The national Council for childhood and motherhood and the child care services should make regular observations for signs that physical abuse may occur include: o parental

alcohol or substance abuse; o high stress factors in the family life; o previous abuse of the child or the child's siblings;

o history of mental or emotional problems in

parents;

o parents abused as children;

o absence of visible parental love or concern for the child; o and neglect of the child's hygiene.

Medical malpractice

It is essential to develop a strong health care system with the ability to accredit, monitor and evaluate the provided health services.

Also , continuous education and on-the-job training of the physicians is important to ensure safe practices

in addition , it is important to enact and enforce legal restrictions and regulatory controls and to raise public awareness of consumer rights and standard clinical behaviors as in the codex Hammurabi (1700 BC) , punishment in cases of medical malpractice was described . for instance, it recommends that a practitioner's hands should be cut off if his patient dies or loses his eyesight. also, if a dead patient was a slave, a practitioner's slave could be given as compensation.

Medical consent

physicians should:

- I. Speak in the patients' language of preference
- II. Avoid technical terms
- III. Attempt to translate statistical data into everyday probabilities
- IV. Enquire whether patients understand the information.
- V. Invite questions.
- VI. Interpret other information that patient has to ascertain its relevance.

Medical ethics

1-Sessions for medical students about medical ethics. Hospitals should make sure about conducting medical ethics.

2- Inform about the importance of ethics for the relation between patient and physician.

3- Ministry of health and laws should take it's way with doctors who don't follow medical ethics.

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