A RARE CASE OF CLOACAL EXSTROPHY WITH IMPERFORATE ANUS

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Introduction: Cloacal extrophy is an extremely rare congenital disorder thought to be related to abnormal development of the cloacal membrane, a transitory structure composed of endoderm and ectoderm that overlies the embryonic cloaca. It is a severe birth defect, extremely rare; present in 1 in 2 lakh pregnancies & 1 in 4 lakh live births (1). The arrested development of the cloaca leads to urethral, vaginal, and rectal openings all sharing a common single external orifice with imperforate anus. It is mainly caused by a defect of the ventral body wall. Several theories have been suggested, but the exact nature of this problem is currently unknown.

Case Report: A 28-year-old woman gave birth to a preterm intrauterine dead male fetus of gestational age, 32 weeks. Antenatal ultrasonography revealed the fetus in the breech position with absence of anterior abdominal wall with tri-lobed cystic structure suggestive of limb abdominal wall complex - cloacal extrophy. Fetus died in utero.

Fetal autopsy is done. Weight and height of the fetus was 1750 g and 37 cm respectively. External examination showed a defective abdominal wall. There was an imperforate anus with only a dimple seen in the perineum. No other anomalies noticed externally. Internal examination revealed the ureters and intestine opening into a common wide cavity – cloaca, measuring about 9 x 8 x 5 cm. Intestines are dilated and distended with meconium. Rests of the internal organs are in their normal position and grossly appeared normal. Histopathology from the cloaca show lining with transitional epithelium and flattened epithelium .Sections from thymus, lungs, spleen, intestines are of normal histology and correlated with gestational age. Brain was autolysed.

Discussion: Exstrophy of the cloaca was first described in 1709 by Littre and later in 1812 by Meckel. Cloacal extrophy is difficult to define because the combination of anomalies is different from case to case. Severe anomaly along a spectrum that includes both epispadias and classic bladder extrophy collectively has been termed the extrophy-epispadias complex (EEC) (1). Cloacal extrophy has also been referred to as the OEIS complex: omphalocele, extrophy, imperforate anus, and spinal defect. Beside these classic defects, most affected infants also have other anatomic anomalies (2).

Nowadays, cloacal extrophy can often be diagnosed using antenatal ultrasound. The ultrasound criteria involve no visualization of the bladder, a large midline infraumbilical anterior wall defect or a cystic anterior wall structure, an omphalocele, and lumbosacral
anomalies. The antenatal diagnosis of cloacal extrophy may cause parents to have antenatal consultation with a pediatric urologist or a surgeon and facilitate appropriate referrals before birth. The classic cloacal extrophy manifests itself as two extrophied bladder halves divided by a strip of the extrophied cecum, generally accompanied by a prolapsed ileal segment. In our case the fetus died in utero at 32 weeks of gestation, but for the common opening of the intestine and the ureters with an imperforate anus, other viscera appear normal. In case of live born children, Surgery performed to repair cloacal extrophy is usually carried out in the neonatal period, during the first 72 hours if possible, in collaboration of pediatric surgeons and urologists (3).

This case being a rare congenital anomaly is presented with a message that advances in medical and surgical managements have allowed for dramatic improvement in the survival of babies born with this birth defect. Nonetheless, Cloacal extrophy remains a rare and challenging diagnosis and must be managed only in tertiary centers with all necessary specialists and units.

References:


SUICIDAL SELF STRANGULATION

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Abstract

Strangulation is construed as homicidal unless otherwise proved. Here is a case of self strangulation (suicide). History, external and internal findings suggest hormonal disturbance during periods has provoked suicidal tendency.

Keywords: suicide, strangulation, homicide,
AN INTERESTING CASE OF FETAL AUTOPSY – CONGENITAL LYMPHEDEMA

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Introduction: Congenital familial primary lymphedema or hereditary lymphedema (Milroy’s disease) was first described by Nonne in 1891 and Dr. William F Milroy in 1892, who suffered from the disease. It is an autosomal dominant disorder.

Case Report: A male fetus with bilateral lower limb edema aborted at 24 weeks gestation had come for autopsy. Antenatal history was insignificant. USG showed edema of lower limbs with no other congenital anomalies. All the measurements and weight of the fetus were normal for gestation. External examination showed bilateral edema of lower limbs extending from thigh to foot. Six toes were present in each foot. Internal examination showed all the viscera in normal position and no abnormalities were seen. Microscopically all the organs showed immaturity corresponding to the gestational age. Sections from skin of the legs showed thinned out epidermis with dermal edema and ecstatic dilated vascular channels of variable sizes lined by plump endothelial cells distributed throughout the dermis extending till the subcutis. Some of the channels were empty and some filled with blood.

Discussion: Milroy’s disease presents as unilateral or bilateral lower limb non pitting edema extending from thigh to foot at birth. In English literature approximately 200 cases have been described. Milroy’s disease has no racial predilection. Milroy’s disease affects both sexes; however 70-80% of cases occur in females. The cause of Milroy’s disease is classically thought to be due to dysgenesis of lymphatic microvessels. The dysgenesis ranges from mild to severe and even to aplasia of both the lymphatic capillaries and collectors. Lymphatic drainage appears to be completely normal in the upper limbs. This condition is suggested by the finding of an isolated edema of the lower limbs in the fetus on ultrasonography, a normal karyotype and absence of other significant malformations but sometimes associated with polydactyly. At the cellular level, Milroy’s disease has been related to defective VEGFR3 signalling mapped to a part of chromosome arm 5q. This region codes for a Tyrosine kinase receptor specific for the function of the lymphatic vessels. This lesion has to be differentiated from Hydrops fetalis where there is generalised edema and non lymphatic edema which is usually associated with congenital heart disease. The patterns of inheritance are highly variable and patients can survive till adulthood. Reported complications, although rare, have been reported like intestinal lymphangiectasia, bacterial infections of dorsal aspect of feet and toes, angiosarcoma and lymphangiosarcoma.
References:


AUTOPSY LIABILITY – ARTEFACTS

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Abstract
Artefact is any change caused or feature introduced into a body, that is likely to lead to misinterpretation of medico legally significant post mortem findings. Artefacts of various kinds are frequently found in almost all bodies. The responsibility of autopsy pathologist is very great. Thorough knowledge of various artefacts is essential. Conclusions drawn correctly and logically bring best credentials to one’s autopsy evidence. Various artefacts and their distinguishing features are shown.

Keywords: autopsy responsibility, artefacts, distinguishing features

PARTIAL HANGING

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Abstract
Partial hanging is viewed suspiciously in general, the cause being homicidal. In fact partial hanging in sitting, reclining, supine and prone positions is due to suicidal hanging. Various photographs are in display.

Keywords: partial hanging, photographs, display, homicidal
**POSTMORTEM RECONSTRUCTION OF FACE AFTER POLYTRAUMA IN UNKNOWN BODIES**

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**Abstract**

Whenever an unknown dead body is brought to the Mortuary especially after the Road Traffic Accidents or other traumatic injuries, the problem of identification arise. No doubt the clothes, personal belongings including the Identity Card are used to identify the dead person but the importance of face cannot be ignored. Even when the family members come to the mortuary, they look at the face of the dead for the purpose of identification. So the physical reconstruction of face is important.

In cases of Homicide the assailant tries to disfigure the face of the victim so that the identity remains unknown. This study shows the importance of postmortem reconstruction of the injured face leading to identification of unknown dead bodies.

**Keywords:** postmortem, reconstruction, face, poly trauma, unknown, identification

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**SUICIDAL FOETICIDE**

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**Abstract**

Injustice has always been done to women at almost every stage of their life. This is to enlighten the injustice that happens to the female foetus when their pregnant mother commits suicide leading to their foeticide, on the background of such a case where if the pregnant women had survived the attempt of suicide she would have been prosecuted for attempt to suicide and charges for foeticide. But because she is dead and her parents and relatives had no suspicion on her in-laws, the case was booked under sec174 CrPC followed by police inquest and autopsy and the case was closed without any trail and discussion for the denied justice to the female foetus.

**Keywords:** Suicide, female foeticide, denied justice
CHILD ABUSE

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Abstract
India is home for almost 19% of world’s children, more than 1/3rd of country’s population. According to a study, 50% of children were subjected to one or other forms of physical abuse, 5.69% are sexually assaulted. In 83% cases parents were abusers. So it can be understood how intense the problem is. It can lead to development of mental illness, sexual perversions, criminal and aggressive attitude in children. I believe that when we identify such children in our daily practice, it’s our duty as a doctor to counsel the parents and even report for legal action in extreme cases. Identifying features in an abused child, the nature of injuries helps us to diagnose the situation of an unfortunate child. So dear doctors, help today’s children lead a pleasant childhood for a better tomorrow.

Keywords: Child, Abuse, India, physical, sexual

A CASE REPORT OF HAIR DYE POISONING

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Abstract
Hair dye (SUPER VASMOL) poisoning is not rare but is an emerging poisoning in India. The main component of hair dye causing toxicity is paraphenylenediamine (PPD). There is no specific antidote and treatment is mainly supportive. It is imperative to raise public awareness of the potential toxicity of the dye as well as to educate physicians about the need for aggressive and early treatment.

Keywords: Hair dye, super vasmol, toxicity, paraphenylenediamine, antidote
EMBALMING IN FORENSIC PRACTICE

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Abstract

Embalming has been of immense importance as a means of preserving the dead in many cultures globally. Preservation of cadavers is normally achieved through the process of embalming, in which a fixative is introduced into body tissues by means of various technical approaches. Successful embalming requires the use of adequate formulas and techniques to fulfill a long term structural preservation and minimize shrinkage and any harmful toxic effects to personal and environment. Embalming methods, procedure, and steps are discussed in this paper presentation.

Key words: Embalming, Formalin, Cadavers, Environment.

POSTMORTEM RADIOLOGY & IMAGING

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Abstract

Conventional radiography is traditionally used to complement forensic autopsy, serving primarily to document metallic bullet fragments, foreign bodies, fractures, and injury patterns. It is also used to aid in the determination of identity when conventional methods of identification such as finger printing or DNA analysis are not available or cannot be utilized. X-ray, CT scan and MRI scanning used to focus the autopsy on specific abnormalities, view injury patterns in three dimensions, detect occult disease or injury without dissection, and evaluate anatomic areas that are difficult to dissect. Cross sectional imaging makes the radiologic contribution to forensic autopsy more effective and may increase both the speed and accuracy of forensic investigation.

Keywords: Radiology, Imaging, Autopsy, MDCT, MRI.
OCCUPATION HAZARDS TO FORENSIC STAFF

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Abstract

Knowing the magnitude of the problem is the first step towards finding its solution. It is clear historically that Forensic staff is at an increased health risks from their occupation. Biological hazards include infection through aerosols and through accidental direct transfer of blood and body fluids as in needle pricks etc. Physical hazards include manual handling risks while transporting the bodies [ergonomics] etc. Chemical hazards are from either the materials ingested by the case or from the materials used in the mortuary. Social hazards include the social stigma towards them and the stress from the constant dealing with emotionally fraught situations.

Keywords: Occupational hazards, aerosol infections, ergonomics, secondary infection, social stigma.