



ANNUAL SCIENTIFIC SESSIONS 2018

2nd February 2019

at

Opulent River Face Hotel,
Sri Jayawardenepura, Kotte

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Insert the Council photograph here (Pg. 5)

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Medico-Legal Society Awards

- i. M.S.L. Salgado Award for the best presentation
- ii. Best Research paper
- iii. Best Case Report
- iv. Best Concept Paper



Annual Scientific Sessions 2018

Programme

Opulent River Face Hotel,
Sri Jayawardenepura, Kotte

MLS Scientific Session 2018- Programme at a Glance

Time	Event
8.30 a.m. - 9.00 a.m.	Registration
9.00 a.m. - 9.45 a.m.	Inauguration Ceremony
9.45 a.m. - 10.15 a.m.	Refreshments
10.15 a.m.- 12.00 Noon	Symposium -“Social Media: A freedom Boundless?”
	10.15 a.m. - 10.20 am. Introduction of speakers
	10.20 a.m. - 10.40 a.m. Mr. Jayantha Fernando
	10.40 a.m. - 11.00 a.m. Mr. M. R. Latiff
	11.00a.m. - 11.20 a.m. Mr. Sudarshana Gunawardena
	11.20a.m. – 11.40 a.m. Mr. Roshan Chrandragupta
	11.40 noon – 11.55 p.m. Questions from the Audience
	11.55 p.m. - 12.00 p.m. Final Comments
12.00 p.m - 1.00 p.m.	Lunch (Registered Participants only)
1.00 p.m. – 3.00 p.m..	FP Session 1
	Free Papers No. 1, 2, 3, 4, 5, 6, 7, 8
3.00 p.m. - 3.15 p.m.	Afternoon Tea
3.15 p.m. – 5.15 p.m.	FP Session 2
	Free Papers No. 9, 10, 11, 12, 13 ,14, 15,16
5.15 p.m. – 5.30 p.m..	Award Ceremony

Programme- Inauguration Ceremony

8.30 a.m. - Registration of participants

8.45 a.m. - Invitees take their seats

8.55 a.m. - Arrival of the Chief-Guest

9.00 a.m. - Ceremonial procession

9.05 a.m. - Traditional Lighting of the oil lamp

9.10 a.m. - National Anthem

9.15 a.m. - Welcome Address

Dr. Ajith Tennakoon

President, Medico-Legal Society

9.25 a.m. Address by the Chief Guest

Dr. Deepika Udugama,

Chairperson of the Human Rights Commission of Sri Lanka

9.40 a.m. - Vote of Thanks

Mr. Madhawa Tennakoon

Joint Secretary, Medico-Legal Society

9.45a.m. - Ceremonial Procession leaves

9.50 a.m. - Refreshments

Symposium

“Social Media : A freedom Boundless?”

Symposium 10.15 a.m. 12.00 p.m.

“Social Media: A freedom Boundless?”

Moderator: *Mr. Madhawa Tennakoon*

Speaker 1: “Legal Framework related to regulation of Social Media in Sri Lanka Social Media?” (20 minutes)

Mr. Jayantha Fernando

Director, Sri Lanka Computer Emergency Response Team (SLCERT)

Speaker 2: Best practices in investigating offences related to Social Media. (20 minutes)

Mr. M. R. Latiff

Senior DIG , Commandant Special Task Force(STF)

Speaker 3: “Social Media: Freedom Vs Ethics “(20 minutes)

Mr. Sudarshana Gunawardena,

Former Director General - Government Information Department

Speaker 4: Challenges in Forensic investigations related to Social Media “(20 minutes)

Mr. Roshan Chrandragupta

Snr Information Technology Engineer

Sri Lanka Computer Emergency Response Team (SLCERT)

Questions from the audience: 15 minutes

FREE PAPER SESSION 1

Chair persons- Mr. Ariyananda Welianga & Mr. Chatura A. Galhena

<u>Time</u>	<u>Abstract Ref No</u>	<u>Title of the Presentation</u>	<u>Author/s</u>
1.00 -1.15 pm	FP 1	THE SUCCESS OF CIGARETTE AND BEEDI BUTTS AS FORENSIC DNA EVIDENCE IN SRI LANKA	<i>B. M. J. Pusweldeniya & R.J. Illeperum</i>
1.15 – 1.30 pm	FP 2	MEDICO LEGALLY SIGNIFICANT ISSUES AMONG CHILDREN PRESENTING TO THE PERADENIYA TEACHING HOSPITAL COMPLEX	<i>Siddique MS, Vadysinghe AN, Edussuriya DH</i>
1.30 – 1.45pm	FP 3	SCIENTIFIC EXPERT WITNESS ON DRUG RELATED CRIMINAL CASES: AN EFFECTIVE WAY TO STRENGTHEN THE PEACE, JUSTICE AND STRONG INSTITUTIONS	<i>Anushan K, Weerasinghe DPP, Aloka Bandara S, Abeysinghe S</i>
1.45 – 2.00 pm	FP 4	A PRELIMINARY STUDY OF 100 CHILD VICTIMS SUBJECTED TO CRUELTY	<i>Tissera W W N</i>
2.00 – 2.15 pm	FP 5	THE CURRENT NEED OF TRANSFORMING MEDICAL ETHICS TO BIOETHICS IN UNDERGRADUATE AND POSTGRADUATE MEDICAL EDUCATION.	<i>Perera W.N.S Paranitharan P</i>
2.15 – 2.30 pm	FP 6	DEVELOPMENT OF A GAS CHROMATOGRAPHIC TANDEM MASS SPECTROMETRIC METHOD FOR THE QUANTITATIVE DETERMINATION OF MDMA IN POSTMORTEM BLOOD AND URINE.	<i>Gunawardane SLR, Karunaratne WDV, Perera KAPB, Dilhani Menike TRMC, Chandrasiri PGP, Kulasekara C, Welianga A</i>
2.30 –2.45 pm	FP 7	PUSHED TO DEATH OR FELL TO DEATH? A SAGA OF A YOUNG MAN DYING WHILE BEING APPREHENDED	<i>Mendis NDNA, Thennakoon UAK, Attygalla U</i>
2.45 – 3.00 pm	FP 08	DETECTION OF NOVEL PSYCHOTROPIC SUBSTANCES ON BLOTTER PAPERS	<i>Abeysinghe S, Aloka Bandara S, Weerasinghe DPP, Muthumala KM</i>

FREE PAPER SESSION 2

Chair persons: Dr. Uthpala Attygalle & Mr. J.M.R. Jayasundera

<u>Time</u>	<u>Abstract Ref No</u>	<u>Title of the Presentation</u>	<u>Author/s</u>
3.15 -3.30 pm	FP 09	INQUISITORIAL CASE CONFERENCE AND FORENSIC MEDICAL CLINIC TO EXPEDITE A BETTER CRIMINAL JUDICIAL PROCESS	<i>Sivasubramaniam M, Senasinghe DPP, Chandrakirthi A,</i>
3.30 -3.45 pm	FP 10	DRUG TRAFFICKING THROUGH SOCIAL MEDIA AND THE NEED FOR SCIENTIFIC INTELLIGENCE COLLECTION TO STRENGTHEN DRUG LAW ENFORCEMENT CAPACITIES	<i>Abeynayake MWNM, Weerasinghe DPP, Aloka bandara S, Abeysinghe S</i>
3.45 -4.00 pm	FP 11	STUDY ON EVALUATION OF KNOWLEDGE AND ATTITUDE ON USAGE OF PHOTOGRAPHIC EVIDENCE IN THE COURTS BY FORENSIC DOCTORS	<i>Nadeera D.R, Edirisinghe P.A.S, Kitulwatte I.D.G.</i>
4.00 - 4.15 pm	FP 12	FTAs, NCDs, PREMATURE DEATH & MEDICO-LEGAL ISSUES: NEED TO REPEAL CLAUSE 5 (1) (C) (V) OF THE RIGHT TO INFORMATION (RTI) ACT NO 12 OF 2016 IN THE PUBLIC INTEREST	<i>Perera A G D</i>
4.15 – 4.30pm	FP 13	SCIENTIFIC INTELLIGENCE AND DIGITAL EVIDENCES ON MEDICO-LEGAL CASES: AN EFFECTIVE WAY TO COUNTER DRUG RELATED ORGANIZED CRIME AND ILLICIT DRUG TRAFFICKING THROUGH INTERNET AND SOCIAL MEDIA	<i>Anushan K, Weerasinghe DPP, Aloka bandara S, Abeysinghe S</i>
4.30 - 4.45 pm	FP 14	A NATURAL CASE OF CAPSULA MUNDI - IS IT A PHENOMENON UNKNOWN?	<i>Mendis NDNA, Tennakoon A, Perera SDC</i>
4.45 - 5.00 pm	FP 15	CAN WE IDENTIFY THE ACTUAL PERPETRATORS FROM MULTIPLE SUSPECTS IN GANG RAPE EVIDENCE?	<i>Perera L.R.T., Sanjaya W.A.H., Marasinghe E., Bandaranayake V.J., Jayamanne D.H.L.W.</i>
5.00 - 5.15 pm	FP 16	A CASE OF FIREARM INJURIES IN A LIVING VICTIM; MEDICO LEGAL CHALLENGES	<i>Gunathilaka MMAC, Wijewardhana,HP Kitulwatte, IDG</i>

Abstract Reviewers

1. **Mr. Palitha Fernando, President's Counsel**
Former Attorney General
2. **Dr. S.M. Colombage**
Former Consultant Judicial Medical Officer
3. **Mr. Ariyananda Welianga**
Government Analyst of Sri Lanka
4. **Mr. Chandra Fernando**
Former Inspector General of Police

The panel of assessors for selecting the Medico-Legal Society Awards for 2018

1. **Ms. Ayesha Jinasena P.C.**
Additional Solicitor General
2. **Professor Anuruddhi Edirisinghe**
Cadre Chair and Professor of Forensic Medicine
Faculty of Medicine, University of Kelaniya
3. **Mr. Chandra Fernando**
Former Inspector General of Police
4. **Mr. R.A.D Kumarwickrama**
Former Senior Asst. Government Analyst

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FP - 01

THE SUCCESS OF CIGARETTE AND BEEDI BUTTS AS FORENSIC DNA EVIDENCE IN SRI LANKA

B. M. J. Pusweldeniya¹ & R.J. Illeperuma²

¹Scientific Officer, Department of Molecular Forensics, Genetech

²Senior Scientist, Department of Molecular Forensics, Genetech

Introduction

Cigarette and beedi butts at a crime scene are considered to be having a high evidentiary value as DNA evidence in crime investigation. These samples contain traces of saliva, mucosal epithelial cells from lips and oral cavity allowing forensic scientists to establish the identity of the smoker.

Objective

To evaluate the success of cigarette and beedi butts as forensic DNA evidence in Sri Lanka.

Methodology

A retrospective study on DNA testing data of cigarette and beedi butts from numerous crime scenes of Sri Lanka. The study analyzed a total of 100 cigarette (82) and beedi (18) butts tested at Genetech, from January 2016 – June 2018.

Results

The average amount of DNA recovered from a cigarette/beedi butt was 9.27 ng/μl which is slightly higher than that of a hair shaft (8.36 ng/ul). Both cigarette and beedi butts furnished a success rate of 86%, out of which 71 cigarette butts (86.58%) and 15 beedi butts (83.33%) have generated nuclear DNA profiles, upon analysis. Furthermore, 9% of these tested samples contained mixtures from multiple individuals, the results of which demanded special interpretation criteria when identifying each smoker. The remaining 14% of the samples that were not successful in furnishing DNA information because of having degraded DNA or extremely low amounts of DNA in the production.

Conclusion

The minute amount of biological material present in cigarette/beedi butts, its exposure to harsh environmental factors such as heat, light, microbial decompositions and contaminants such as phenolics, tars from smoke and flavour additives that could inhibit Polymerase Chain Reaction (PCR), thereby hindering the generation of an evidentially productive DNA profile. Even in such circumstances, it is likely to obtain at least a partial DNA profile of the smoker, if strict collection and preservation methods are strictly adhered to by a crime investigator.

FP - 02

Medico legally significant issues among children, presenting to the Peradeniya Teaching Hospital complex

Siddique MS¹, Vadysinghe AN², Edussuriya DH³

¹ A Postgraduate Trainee, Department of Forensic Medicine, University of Peradeniya, Sri Lanka

² Senior Lecturer/Consultant Judicial medical officer, Department of Forensic Medicine, University of Peradeniya.

³Senior Lecturer, Department of Forensic Medicine, University of Peradeniya

Introduction

Injury is a leading cause of death and a disability worldwide having a profound effect on individuals, family, society and the country. Children are more susceptible to injuries due to their inability to protect themselves.

Objective

To determine causative factors, injury pattern and socio-demographic profile of children presenting to the teaching hospital Peradeniya, for clinical forensic examination, for a period of one year.

Methodology

The study was conducted for a period of one year from 2017 september. History was obtained and examination was done on children presenting to the Teaching hospital Peradeniya, where a Medico Legal Examination Form (MLEF) was issued.

Result

Two hundred and forty two children were recruited. Hundred and fifty seven (64.9 %) were male. A majority (42.6%) were between 16-18 years. Majority of injuries were due to road traffic accidents (60.7%), followed by assault (18.2%), sexual abuse (12%) and accidental falls 12 (5%). Others (3.7%) were due to poisoning, drowning, air gun injury, burn etc. Males were predominantly affected except in sexual abuse. Double the number of males were affected in traffic accidents when compared to females while three times the number of males were affected than females in assaults. The main category of hurt was non-grievous (62%) with (23.6%) grievous injuries. Thirty point six percent had intentional trauma with a male predominance. Risk factors for sexual abuse were identified as overseas migration for domestic labour, single parent family, peers having love affairs and internet access.

Conclusion

Road traffic injuries are the main cause for admission to the THP. Males are more vulnerable to injuries in general while girls are more vulnerable to sexual abuse.

FP - 03

SCIENTIFIC EXPERT WITNESS ON DRUG RELATED CRIMINAL CASES: AN EFFECTIVE WAY TO STRENGTHEN THE PEACE, JUSTICE AND STRONG INSTITUTIONS

Anushan K¹, Weerasinghe DPP¹, Aloka Bandara S¹, Abeysinghe S²

¹The National Narcotics Laboratory, National Dangerous Drugs Control Board, 383, Kotte Road, Rajagiriya

²Department of Botany, University of Ruhuna, Wellamadama, Matara

Introduction

Drug related criminal activities continues to evolve, expand and become more complex in nature exploiting scientific and technological developments and reflecting changes in contemporary society posing significant threats. Any type of drug charge is a serious situation. The consequences of a drug conviction in Sri Lanka can be severe and, in many cases, life-changing. In very complex drug-related cases, scientific evidence shall be utilized in numerous ways without limiting to the identity of the drug substances in the drug seizures.

Objective

This concept discussion outlines the scientific expert witness opportunities on drug related criminal cases to strengthen the peace, justice and strong institutions to achieve the sustainable development goals by 2030.

Discussion

The legal system relies heavily on expert testimony on a wide range of subjects. Complicated questions of facts increasingly demand scientific and technical judgments by jurists, juries, and lawyers. Therefore, presence of scientific experts who are usually well prepared by education or experience to make such decisions in litigation to explain complicated scientific issues with scientific principles and evidentiary standards, is essential for acquaint fair judges.

Court to appoint scientific expert witnesses is a sustainable way to make links with the scientific professionals to gain scientific knowledge and recommendations for all aspects of the drug related criminal cases and the attribution of scientific expert shall be endorsed by education, autonomy, experience and intuitive understanding. Moreover, dealing with the admissibility of scientific expert evidence and the implications of these cases will be beneficial for judges, juries, and expert witnesses to ensure the truth-seeking process in a more accurate manner.

Conclusion

In briefly, this article discusses the scientific expert witness opportunities to ensure justice for all and to establish effective, accountable criminal justice system and inclusive institutions at all levels for promoting peaceful societies for sustainable development in Sri Lanka.

FP – 04

A PRELIMINARY STUDY OF 100 CHILD VICTIMS SUBJECTED TO CRUELTY

Tissera W W N

Attorney – at – Law

Introduction

Abuse, violence, exploitation and neglect of children cuts across all segments of Sri Lankan society irrespective of geographic locality, ethnicity, social and religious status. Cruelty to children is an obstacle to a child's education as well as their physical, emotional and spiritual development. Children need to be loved, nurtured and protected at all times to achieve their full growth and developmental potential. If children are subjected to abuse and neglect they will bear long lasting physical and psychological scars.

Objective

- To study the forms of cruelty
- To study the gender of child victims subjected to cruelty.
- To identify the relationship of the perpetrator to the victim and their defense.
- To determine the place where child victims are susceptible to cruelty.

Methodology

An analytical study of 100 randomly selected cases of cruelty to children referred to the Attorney General for advice. These incidents have taken place over a period of seven years (2010 – 2017). The data thus obtained was then analyzed into the forms of cruelty, gender of victims, relationship of the perpetrator and place of incident.

Results

Male victims are more prone to cruelty than female victims. Parents of victims are the main perpetrators. Majority of children face cruel treatment at their own home and school. Highest rates of cases were recorded from the western province. It should also be noted that the admitting rate of this offence is high.

Conclusion

Although it is believed that children are safe at their own home with their own family and at school that play a special role in society ensuring that children in their care are afforded a safe and secure environment to grow and develop, this research proves otherwise. Hence cruelty does prevail in places we believe to be the safest for children.

FP -05

THE CURRENT NEED OF TRANSFORMING MEDICAL ETHICS TO BIOETHICS IN UNDERGRADUATE AND POSTGRADUATE MEDICAL EDUCATION

Perera W.N.S¹, Paranitharan P¹

¹Senior Lecturer, Department of Forensic Medicine, Faculty of Medicine, University of Kelaniya.

Introduction

Medical ethics is vital in patient care and provide useful guidelines in situations where the decision making process become complex. After the world war two there were many challengers to the norms of the medical ethics mainly due to the fact that the doctor has to be associated with medical research, new methods in treatment and introduction of new medical devices. The Hippocratic oath, the declaration of Helsinki and the Nuremberg code continue to serve as underpinning pillars in the implementation of medical ethics but the twenty first century needs more advanced thinking and a better tool in medical ethics.

Objective

The objective of this paper is to discuss the necessity of widening the scope of medical ethics towards bio ethics in undergraduate and post graduate medical education and teaching it to the professionals and personnel who give care to the patient.

Discussion

Bio ethics is a relatively new concept that is used to explain the application of moral principles into biomedical aspects relevant in present context and in future. Scope of bio ethics is wider than the medical ethics. Boundaries of medical ethics has expanded into bio ethics demanding new ethical principles and rights of the human, animal, environment, life sciences and advancement in technology. This is more relevant in present day context since Sri Lanka is a part of bio bank researches, genetic studies and drugs and vaccine multi center trials. Therefore, medical ethics which was taught as an integral part of the medical curricula as a module or strand and its teaching methods such as lectures and tutorials which gives basic knowledge is not adequate to cater the needs of the day and need reforms.

Conclusion

Learning bio ethics helps a person to improve their critical thinking, apply its knowledge in ethical dilemmas and allow them to consider implications of health polices to the society and patient

FP – 06

DEVELOPMENT OF A GAS CHROMATOGRAPHIC TANDEM MASS SPECTROMETRIC METHOD FOR THE QUANTITATIVE DETERMINATION OF MDMA IN POSTMORTEM BLOOD AND URINE

Gunawardane SLR¹, Karunaratne WDV², Perera KAPB², Dilhani Menike TRMC¹, Chandrasiri PGP¹, Kulasekara C¹, Weliana A³

¹Assistant Government Analyst, ² Deputy Government Analyst, ³ Government Analyst
Government Analyst's Department, No 31, Isuru Mawatha, Pelawatta, Battaramulla

Introduction

MDMA (methylenedioxyamphetamine) commonly called Ecstasy, is a ring substituted amphetamine derivative. It differs from amphetamine in chemistry, pharmacology and method of analysis. In the recent past MDMA has become popular in Sri Lanka among the person who attends nightclubs and night parties etc. As MDMA enhances energy endurance, sociability and sexual arousal, generally teenagers and young adults believe that ecstasy is a safe drug. However, MDMA (Ecstasy) is associated with causing death by number of mechanisms including hyperpyrexia, cardiac arrhythmic etc.

Case study

Postmortem specimen of four deceased youths (who attended a dance party organized through face book) was forwarded to the Government Analyst's Department for analysis. MDMA was identified in gastric contents of all four victims using Gas Chromatography Mass Spectrometry (GC-MS). A new Gas Chromatographic Tandem Mass Spectrometric (GC- MS- MS) analytical technique was developed for the determination of MDMA in blood and urine both qualitatively and quantitatively.

Method

MDMA was extracted from biological fluids using liquid-liquid extraction with chloroform. A GC-MS-MS method with Positive, Electrospray Ionization (EI) with Multiple Reaction Monitoring (MRM) mode was developed for the determination of MDMA.

Results

MDMA was identified in both blood and urine samples of each four victims. The concentration level of MDMA in blood was 0.75 mg/l – 3.89 mg/l and that of urine was 1.72 – 156.25 mg/l.

Conclusion

According to literature recreational dose of MDMA produces blood levels in the range of 0.10- 0.25 mg/l. The concentration levels obtained were 8 – 16 % times higher than the accepted recreational dose. Due to unpredictable tragic consequences and possibility of fatal outcome makes Ecstasy use, a serious public health issue. Therefore the general opinion on Ecstasy's reputed safety should be corrected.

FP - 07

PUSHED TO DEATH OR FELL TO DEATH? A SAGA OF A YOUNG MAN DYING WHILE BEING APPREHENDED

Mendis NDNA¹, Tennakoon UAK², Attygalle U³

- ¹ Senior Lecturer, Dept. of Forensic Medicine and Toxicology, Faculty of Medicine, Colombo.
- ² Chief Consultant Judicial Medical Officer, Institute of Forensic Medicine and Toxicology, Colombo.
- ³ Consultant Judicial Medical Officer, Base Hospital, Panadura

Introduction:

Exhumation is the retrieval of a legally buried body. However in general terms retrieval of a body which has been surreptitiously disposed or remains recovered buried elsewhere is also described as exhumations. This a case report of a body legally exhumed two months after burial following an medico-legal autopsy.

Objective:

To discuss the issues related to reconstructing the scene, determination of circumstances and cause of death in exhumed body.

Case history:

A body of a young adult was retrieved from its formal burial grounds on 15.03.2016 under the order issued by magistrate Embilipitiya. He has allegedly died of complication of injuries he has sustained while being apprehended by police. Evidence also indicate fair amount of struggle between the deceased and the police with attempts to ran away and a possibility of a push or a jump from height. Patient was admitted to Ratnapura General Hospital while on transfer to National Hospital from the local hospital.

Findings:

Both 1st and 2nd autopsies revealed multiple cut injuries with at least two fatal injuries. Evidence of blood clots still seen around injuries indicate heavy blood loss. There is evidence to confirm post traumatic movement of the victim. Absence of any other characteristic injuries of assault or fall from height. Cause of death was given as shock and haemorrhage following multiple cut injuries.

Discussion:

Many parties were involved in a tussle to prove their own case. Major issue of death resulting from act of pushing has to be addressed. Therefore in addition the cause of death, opinion on likely terminal events occurred was also made. However a push cannot be totally excluded but injury pattern is more consistent with a person landing on feet first. Fatal injuries were two cut injuries one in right axilla and the other left elbow and forearm.

FP - 08

DETECTION OF NOVEL PSYCHOTROPIC SUBSTANCES ON BLOTTER PAPERS

¹Abeyasinghe S, ²Aloka Bandara S, ³Weerasinghe DPP, ⁴Muthumala KM

¹Chairman, National Dangerous Drugs Control Board

²Director General, National Dangerous Drugs Control Board

³Assistant Director (Scientific Research), The National Narcotics Laboratory, National Dangerous Drugs Control Board

⁴Scientific Officer, The National Narcotics Laboratory, National Dangerous Drugs Control Board

Introduction

Over the last decade many novel “designer” drugs, including wide variety of phenethylamines and cathinones have been continuously emerged in the illicit drug market worldwide. The blotter papers (stamps), traditionally known to saturate with microgram level of potent hallucinogen, Lysergic acid diethylamide (LSD), has now came up with an alternative introduction of newly designed drugs; phenethylamine and their substituted derivative forms which pose more lethal hallucinogenic effects than LSD.

Case report

Two samples of blotter papers were submitted to the National Narcotics Laboratory by Sri Lanka Police for analysis for the presence of narcotic drugs and psychotropic substances under prevailing drug control Acts. The blotter papers were suspected to contain Lysergic acid diethylamide (LSD).

Methodology

The content of the blotter paper samples were extracted to methanol and analyzed by Gas Chromatography Mass Spectrometry (GC/MS)

Results

The GC/MS analysis of the blotter samples did not reveal the presence of Lysergic acid diethylamide (LSD), which has been traditionally suspicious to contain. However it revealed the presence of 2C-C (2,5-dimethoxy-4-chlorophenethylamine), 2C-E (2,5-dimethoxy-4-ethylphenethylamine), 2C-I (2,5-dimethoxy-4-iodophenethylamine) and 25C-NBOME (a derivative of 2C-C) which are highly potent hallucinogenic substituents of phenethylamine.

Conclusion

The rapid emergence and abuse of new psychoactive substances (NPS) such as 2C-B, 2C-C, 2C-E, 2C-I and other NBOME series drugs continue to develop and rise within the local market as “legal” alternatives to controlled drugs, causing serious risks to public health and safety which demands urgent attention of drug law enforcement, health authorities and law and policy makers for their active participation in control, treatment and rehabilitation activities. Awareness on emerging drug trends and enhancement of the forensic analytical capacity would be of great importance in addressing more effectively the problem of NPS abuse in the country and for the implementation of scientific evidence-based and integrated domestic programmes.

FP – 09

INQUISITORIAL CASE CONFERENCE AND FORENSIC MEDICAL CLINIC TO EXPEDITE A BETTER CRIMINAL JUDICIAL PROCESS

Sivasubramaniam M, Senasinghe DPP, Chandrakirithi A,
JMO's Office, Kandy.

Introduction

"Not only must Justice be done; it must also be seen to be done." The decline in public faith in Criminal Justice System due to various reasons at present has caused a multitude of adverse repercussions throughout the society.

Background

Case1: Parents of 2 sexually abused children ended up at JMO's office in tears. Accused youths were released on bail while abused were held in children's home. The parents of the accused youths interpreted bail as acquittals, whereas two younger children as detained for making false allegations.

Case 2: Girl was allegedly raped by a policeman, who found her with boyfriend. Police subsequently filed a case against her boyfriend for rape when her parents got to know of the sexual assault.

In both these instances the only refuge the victimized parties they could approach was to JMO who examined the children to initiate legal actions.

Justification

We, JMOs only possess capacity and hold professional responsibility to ensure proper guidance of judicial process initiated by sole prosecutor, Police to rectify instances of miscarriage of justice while utilizing already available Primary Health care Facility.

Discussion

Accuser's engagement in crime with impunity, victim's, withdrawal of complaint while victimized others discouraged from coming forward is blatant denial of societal justice.

Victimization causes sociopathic violence, murder or suicide, potentially monitorable via midwife and MOH by gathering much needed information from neighborhood and forensic medical clinic before catastrophe, enabling information gathering alternate to police detectives, especially in domestic violence where police inaction is common.

Mob violence, clashes with police, burning vehicles with RTA and 'underworld shootings' on streets has made public places insecure. Secondly local politicians and cults establish their own kangaroo courts to punish and annihilate their opponents. International community attempts their rule over the country acting via various NGOs under the guise of justice influencing politicians to import Foreign Judges.

'Lama Piyasa' fashioned video recorded case conference involving both accused and victim parties before judicial process gives an opportunity for the accused to be heard in a professional forum with better transparency, record the statements and evidence in a less manipulated state helping finish cases in a shorter trial period akin to continental Europe. Such hearings also give an opportunity to prevent miscarriage of justice to a fairer degree while reinforcing victim confidence as an extension to Mithuru Piyasa in Domestic violence prevention.

FP – 10

DRUG TRAFFICKING THROUGH SOCIAL MEDIA AND THE NEED FOR SCIENTIFIC INTELLIGENCE COLLECTION TO STRENGTHEN DRUG LAW ENFORCEMENT CAPACITIES

Abeynayake MWNM¹, Weerasinghe DPP¹, Aloka bandara S¹, Abeysinghe S¹

¹The National Narcotics Laboratory, National Dangerous Drugs Control Board, 383, Kotte Road, Rajagiriya

Introduction

Social media as a powerful marketing and communication tool creates the opportunity to receive, create or share the messages for the public or with friends at low cost and play a vital role to promote and selling illegal drugs throughout the world. Therefore, social media sites act as a pool of intelligence.

Social media sites such as Facebook, Instagram, Twitter and Youtube provide information about every aspects of human life and enable the spread of ideas related to illegal drugs. Social media sites offer many possibilities to gather data in the form of textual data, picture/photos, videos, sounds and geo locations which are connected to new drug markets, new trends, drug traffickers, transactions, patterns of communications, social gatherings (Facebook parties) etc. and need a considerable attention and subsequent acceptance by drug law enforcement agencies.

Objective

This concept paper outlines the importance of gathering intelligence through social network sites to strengthen the drug law enforcement activities.

Discussion

It is a more challengeable task for the drug law enforcement agencies to identify drug traffickers throughout the world as a reason of robust capacity of social media and other communication tools such as dark nets. It is important to obtain many existing data from social media sites to identify drug traffickers.

Application of scientific evidence based information obtained from social media is highly important to overcome current challenges on criminal justice system. It is highly important to make awareness of the officials of the criminal justice system to apply social media based intelligence for the prosecution purposes.

Conclusion

In brief, use of social media related intelligence collections to identify the drug traffickers and the use of scientific intelligence for the prosecutions purposes are highly important for drug supply control and drug demand reduction in Sri Lanka.

FP – 11

STUDY ON EVALUATION OF KNOWLEDGE AND ATTITUDE ON USAGE OF PHOTOGRAPHIC EVIDENCE IN THE COURTS BY FORENSIC DOCTORS

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Introduction:

Forensic photography is widely in practice worldwide. Most experts in forensic medicine obtain photographs to record the findings in their routine practice. However, use of such photographs as evidence in courts is limited. In Sri Lanka, Evidence (Special Provisions) Act (No. 14 of 1995) – Sec. 4 provides ability to produce digital evidence which is admissible in the court of law.

Objectives:

To evaluate knowledge and attitude on usage of photographic evidence in the court by forensic doctors with post graduate (PG) qualifications and postgraduate trainees in Sri Lanka.

Study design:

A cross sectional descriptive study was conducted using an on-line self-administered questionnaire among above mentioned doctors.

Results:

Out of 67 doctors participated in the survey, 38 (59.3%) were having PG qualification whereas 29 were trainees. Majority (72.4%) of both categories agreed that printed forensic photographs as an annexure in MLR / PMR are admissible in the court even though they were taken from camera phones. 26.3% (n=10) and 37.9% (n=11), PG doctors and trainees respectively think that it is necessary, someone to be an expert in photography to produce forensic photographs as an evidence. Almost one third (31%) of all doctors think they cannot produce photos in the form of electronic data. Only 39.5% (n= 15) of PGs and 24.1% (n= 7) trainees know that photos cannot produce at the date of trial. Even though, 97% of all doctors agreed, forensic photographs provides better understand to legal professionals than describe a scenario, 62.1% of trainees think it causes impartiality and negative influence in administration of justice which is statistically significant (p=0.04). 72.4% of trainees also think, providing photographs to the courts provides unnecessary information to defense lawyer to argue (p= 0.0004).

Conclusion:

Although knowledge on some aspects of legal implementation of forensic photographs to the court was adequate among the group, there are gaps. Attitude of trainees seems to be poor in this regards and need to be addressed immediately.

FP – 12

FTAs, NCDs, PREMATURE DEATH & MEDICO-LEGAL ISSUES: NEED TO REPEAL CLAUSE 5 (1) (C) (V) OF THE RIGHT TO INFORMATION (RTI) ACT NO 12 OF 2016 IN THE PUBLIC INTEREST

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Introduction

The above clause denies information on overseas Trade Agreements. This is undemocratic and detrimental. Free Trade Agreements (FTAs) are 'legal weapons' used for neo-economic colonization. Two decades post World Trade Organization inception, promised economic benefits of globalized Free Trade have not trickled down to the majority in the global South. Global evidence demonstrate that Trade Liberalization and Free Trade of 'ultra-processed' food products and agro-chemicals have led to a global epidemic of deadly and costly Non-Communicable Diseases (NCDs) such as obesity, chronic kidney disease etc. Global consumers are dying prematurely from 'Free Trade related NCDs'. Scientific evidence is out and robust. Free Trade is Killer Trade!

Ignoring the dangers, Free Trade laws are drafted favouring Transnational Corporations (TNCs). Adding insult to injury, new generation Free Trade Agreements grant TNCs 'unfair' legal rights to sue governments that act to protect public health, environment etc., in secret Corporate Courts! It's time to end this undemocratic and criminal trade dictatorship!

Objective

To highlight the need to repeal the above undemocratic clause in the RTI Act in the public interest.

Discussion

Global data demonstrate that FTAs are detrimental to health, environment etc. Majority of the citizens are unaware of the dangers of FTAs. There is a dire need for consumer/citizen education, empowerment and legal protection.

Conclusions

In advanced democracies a statute can be challenged and repealed post enactment. Citizens have an inalienable right to information contained in FTAs. All information relating to FTAs should be publicised during draft stage - public and professional opinion must be consulted and considered. These rights have been denied craftily via the above clause! This offending clause must be repealed. Economic decisions should not undermine public health. Trade in food and agriculture must be regulated. In this era of 'Trade without Borders and Tariff' Consumer Protection must be provided as a 'Justiciable Constitutional Right'.

FP -13

SCIENTIFIC INTELLIGENCE AND DIGITAL EVIDENCES ON MEDICO-LEGAL CASES: AN EFFECTIVE WAY TO COUNTER DRUG RELATED ORGANIZED CRIME AND ILLICIT DRUG TRAFFICKING THROUGH INTERNET AND SOCIAL MEDIA

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Introduction

Online community interacts through social network and posted information instantly shares all over the world. However, there is an increasing trend in advertisement and sale of the new drugs, provide opportunities for the drug trafficking at low risk without the need for physical interaction, avoid detection through the interception of communication and to network with drug producers/manufacturers, wholesalers, brokers and drug-using customers through underground forums which pose severe threats on the existing legal control systems.

Objective

This paper outlines the extent of the internet drug trafficking problem such as types of drugs, services in support of supply chain and avenues for detection and intervention, identification of the role of agencies and the shared responsibility of the scientific professionals, criminal justice system and drug-law enforcement agencies for sustainable control measures.

Discussion

Internet facilitated drug trafficking has gained considerable attention of organized criminal groups for advertising of new designer drugs on surface web such as “google” etc. and “darknet” for the creation of unanimous online market places which allows customers to search products and venders and payment though virtual currencies. Moreover, clandestine laboratory chemists follow a systematic procedure to increase the potency of new substances by application of advanced scientific knowledge. Therefore, scientific-intelligence practice is mandatory for effective supply control measures on the drug law enforcement investigation and operational activities. Digital evidences submission on court cases is another promising way to control the situation by providing adequate evidences against digital drug crimes and lack of such practices provide opportunities for the drug criminals to maximize their activities using digital facilities.

Conclusion

In briefly, roles of scientific professionals by applying their knowledge to counter advanced techniques used by the clandestine chemists and the digital evidences submission on the court cases are mandatory to effectively control the drug criminal activities in Sri Lanka.

FP -14

A NATURAL CASE OF CAPSULA MUNDI - IS IT A PHENOMENON UNKNOWN?

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Introduction

Methods of burial may be heavily ritualized and can include natural burial (and the use of containers for the dead, such as shrouds, caskets, grave liners, and burial vaults. Depending on the culture, the way the body is positioned may have great significance. This is a case of burial of a body in a coffin following suicide in March 2014. Body was exhumed almost four and a half years after in early September 2018.

Case:

Magistrate order for the exhumation was received on 28th August 2018 and exhumation was performed on 05th September 2018. At the burial site the nearest large trees were about 5-7 metres away. We had to pour water to soften the ground. The partially decayed coffin was found at about a depth of five feet. Skeletal remains were found inside the silk lining of the coffin

On examination it was observed that roots of trees have grown into the surface of the body and into the soft tissues covering the entire exposed surface and the covered surface by the clothes including the face, hands and feet.

Discussion:

It's a known fact that trees grow on burial sites. Even in the 'capsula mundi' project it is expected to trees to grow on nutrient taken from the buried body. However literature survey failed to find a case description of a recorded instance where roots of trees grown in to the soft tissue of the decaying body. This could be a natural phenomenon usually happens but never been observed due to restricted access for such bodies. Capsula Mundi is project where we place the dead in a biodegradable pot. The Capsula will then be buried as a seed in the earth and a tree grown over it. Family and friends will continue to care for the tree as it grows. This could be the first reported case of a natural 'capsula mundi'.

FP – 15

CAN WE IDENTIFY THE ACTUAL PERPETRATORS FROM MULTIPLE SUSPECTS IN GANG RAPE EVIDENCE?

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Introduction

DNA is a powerful investigative tool because, with the exception of identical twins, no two people have the same DNA. During a sexual assault, biological evidence can be left on the victim's body or at the crime scene. Semen stains on clothing or bedding items in a rape could invariably consist of sperm DNA from perpetrators. Serology and DNA section of the Government Analyst's Department well acquaints with the autosomal Short Tandem Repeat (STR) analysis that is typically associated with forensic cases involving DNA. When autosomal STRs are used in sexual assault cases, the amplification and eventual detection on male DNA in a mixture sample may be masked by the presence of high levels of female DNA. Y-chromosomal markers are useful in forensics because they are sensitive to male, and insensitive to female contributions. The application of Y-STRs simplifies the analysis of these mixtures removing the female contribution from the amplification profile. This implies that, for gang rape, the genetic identification of potential perpetrators from the DNA pool of a trace would not be obscured by female genetic material, which is usually present in much larger quantities.

Case 1 : While a young couple staying in a guest house a gang of men entered the premises, threaten and their valuables were stolen. Secondly the girl was raped by six men. Clothing of the victim and reference buccal swab samples of six suspects were submitted for DNA comparison.

Case 2: A lady was threaten and robbed her money by three men. Then they raped her. Clothing of the victim and reference blood samples of three suspects were submitted for analysis.

Conclusion

Autosomal and Y- STR profiles were generated for both evidence and reference samples and the actual perpetrators were identified by comparison.

FP – 16

A CASE OF FIREARM INJURIES IN A LIVING VICTIM; MEDICO LEGAL CHALLENGES

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Introduction

The special role of the forensic pathologist in case of death due to firearm injuries is to assist the Judiciary in determining cause and circumstances of death, type of weapon, number of shots fired, range, direction and angle of fire etc. When it comes to clinical cases, opinions will be same but more challenging. Radiological investigations and critical evaluation of available findings will be mandatory in coming to a conclusion.

Case report

A 20-year-old male admitted to the hospital with a history of fall from a wall while he tried to enter into a house. At the time, he was under the influence of some drugs and he got on to the wall of a house and tried to call them. Then he heard a large noise and he fell on the ground. He was initially examined for medico-legal purposes seven days after the incident.

On examination there was a surgically altered laceration on the front of the left arm which was associated with comminuted fracture of the humerus. There were left sided upper lobe collapse and left sided haemopneumothorax. Radiology; computed tomography (CT) revealed two spherical pellets which confirmed shotgun discharge.

There were no adequate facts to arrive at an opinion on direction and angle of entry. But by evaluating D3 reconstruction of computed tomography (CT) it was proposed that the victim could have been shot either from front or from side, not from the back.

Conclusion

Direction, distribution and depth of fire and type of ammunition found in the body can be identified correctly by using Multi detector-row computed tomography (MDCT) imaging and it was not done in this case. This case highlights the importance of radiological investigation in dealing with firearm cases and need for training and facilities in forensic radiology.