

eConference Proceedings



8th INTERNATIONAL eCONFERENCE-2021

Forensic Medicine & Toxicology



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GREETINGS FROM THE ORGANIZING DESK

The new era post the global pandemic has affected academics, establishments, and individuals' preparedness worldwide. Forensic Science has an interdisciplinary approach and its true essence can be proved meaningful with collaborative efforts of people present around the globe functioning together as a team. With a vision to bring all the academicians, students, and professionals and share their valuable contemplations, the International eConferences are structured to lead the way through endeavors focused to take Forensic to greater heights. We welcome every science enthusiast to become a part of this revolutionizing effort and explore the technological advancements, scientific researches, and opportunities for everyone to flourish.

Dr. Ranjeet Kr. Singh President **International Association Of Scientists and Researchers**

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Phaneendar B N **Forensic Expert, CEO Clue4 Evidence Foundation**

Office-A-14, First Floor, Mahendru Enclave, Delhi-110009

THE ORGANIZER

INTERNATIONAL ASSOCIATION OF SCIENTISTS AND RESEARCHERS (IASR)

IASR is a non-profit organization focused to deliver the updated literature and research work to not only the global scientific and research society, but also to everyone. Providing open access to critically reviewed high-quality research papers and literature, it works with a mission of providing a user- friendly global platforms for researchers, scientists for sharing information, and dissemination of recent ground breaking researches and advancements in various fields working together for the betterment of the world.

About the eConference

Forensic Science has proffered techniques that have leveled up the competence of humankind and are staying up with the trend. At the outset, the International Association of Scientists and Researchers (IASR) in association with the Sherlock Institute of Forensic Science (SIFS) India organizing the 8th International eConference on "Forensic Medicine & Toxicology", 2021. With utmost enthusiasm, the organizing committee invites the young minds and professionals of various disciplines of forensic science and become a part of the first-ever convention organized with the motto of bringing the unrecognized talents, present globally. The program would follow talks by eminent national and international experts accompanied by e-paper presentations, ePoster presentations, discussions, and scientific excellence awards.

Mission Statement

"Committing towards the fact of being a lead-follower of technology with a bold spirit of risktaking, helping us make our presence noticeable worldwide".



SPEAKER'S PROFILE

DR. V V PILLAY

Amrita Institute of Medical Sciences (AIMS), Cochin, INDIA

Dr. V.V. Pillay is the chief of Poison Control Centre & Head of Analytical Toxicology and Professor and Head of Forensic Medicine & Medical Toxicology in Amrita Institute of Medical Sciences (AIMS), Cochin, Kerala. He did his MBBS and MD from Gandhi Medical College, Hyderabad. He has



approximately 97 publications in National and International scientific journals, out of which 23 are in PUBMED. He has been an author/editor of several books, including the first-ever Indian textbook devoted to Toxicology (Modern Medical Toxicology), an exhaustive reference book (Comprehensive Medical Toxicology) and a textbook on Forensic Medicine & Toxicology. In addition, he has also contributed a section on toxicology in several books. He served as an editor of the Journal of the Indian Society of Toxicology from 2005 to 2014. He was a referee on toxicology for the Journal of the Association of Physicians of India and the National Medical Journal of India. He has contributed to several monographs on Analytical Toxicology for the World Health Organization. In 2021, he worked as an external reviewer for the new edition of Guidelines for Poison Control published by WHO. He is a working group member of WHO's Guidelines for Poison Control Network, Edinburgh, UK. In 2004, he founded the Indian Society of Toxicology and became its President for 8 consecutive years. He has been awarded the SOT Travel Award in 2018 at the 57th Annual Meeting in San Antonio, Texas, USA.

DR. MUKESH YADAV

Government Allopathic Medical College, Banda, INDIA

Dr. Mukesh Yadav is currently working as Principal of Govt. Allopathic Medical College, Banda, UP since 2018. He has more than 26 years of

experience in medical education. Previously, he served as a Principal of NC Medical College, Panipat, Haryana. He worked as a Professor & HOD of the Department of Forensic Medicine & Toxicology in various colleges such as KD Medical College, Mathura, UP; FH Medical College, Tundla, Firozabad, UP; TTMC &R, Moradabad, UP etc. He has more than 20 years of teaching experience in various private and govt. medical colleges. He is elected as Editor of the Journal of the Indian Academy of Forensic Medicine for the last 7 years and works hard for timely publication of JIAFM and was instrumental in achieving an internal standard and inclusion in various national and international indexing and database agencies. He has contributed many chapters to many leading books published by Indian authors of repute. He has delivered many guest lectures on medico legal aspects in various national and international conferences and organizing medico legal workshops for doctors and hospitals. He is working on the project "Study of Medical Negligence" cases decided by various consumer courts in India. He has conducted examinations in various universities throughout India at UG and PG levels. He has more than 100 publications in various national and international journals to his credit.





SPEAKER'S PROFILE

DR. SANJAY GUPTA

Pramukhswami Medical College, Gujarat, INDIA

Dr. Sanjay Gupta is working as a Professor & Head of the Department of Forensic Medicine & Toxicology at Pramukhswami Medical College, Karamsad, Gujarat since 2014. In the same college, he has also worked as Assistant Professor from the year 2007 to 2011 and Associate Professor

from the year 2011 to 2014. He completed his MBBS and MD in Forensic Medicine from Government Medical College, Surat from 1997 to 2006. In addition to this, he completed DNB in Forensic Medicine from the National Board of Examination, New Delhi from the year 2008 to 2009. He received a Fellowship of FAIMER (Foundation for Advancement in International Medical Education & Research, Philadelphia, USA) from G. S. Medical College, Mumbai in the year 2013. He also completed his PGDHHM (Post Graduate Diploma in Hospital & Health Management) from Indira Gandhi National Open University in 2015. He is also working as Editor-in-Chief for a Textbook "CBME in Forensic Medicine & Toxicology" which is a multi-authored book. He is the Co-convenor, Observer & Resource Faculty for Medical Education & Technology at NMC (PSMC) Nodal Centre, Member of Department of Medical Education and Health Professional Education and member of Board of Studies at Bhaikaka University, Karamsad, Convenor of Board of Governors, Forensic Science College, Anand, Member of National Advisory Board, Journal of Indian Academy of Forensic Medicine Member – National Advisory Board, Journal of Indian Academy of Forensic Medicine Member – National Advisory Board, Journal os well as National Journals and also a book named "PG Entrance Guide In Forensic Medicine & Toxicology" as Co-author during residency.

PROF. JAYSON PAYNE JAMES

Forensic Healthcare Services Ltd., UK



Prof. Jason Payne-James is a Specialist in Forensic and Legal Medicine. He has been a forensic physician for 30 years. He qualified medicine in 1980

at the London Hospital Medical College and undertook additional postgraduate education to higher degree level at Cardiff Law School, the Department of Forensic Medicine & Science at the University of Glasgow and with the University of Ulster, Northern Ireland. He is Director of Forensic Healthcare Services Ltd and he was President of the Faculty of Forensic & Legal Medicine of the Royal College of Physicians from 2015-2017 and the World Police Medical Officers from 2011-2014. He is an Honorary Professor at the Department of Forensic Medicine, University of Belgrade, Serbia. He is an Honorary Clinical Professor at the William Harvey Research Institute, Queen Mary University of London, UK. He is the Lead Medical Examiner at the Norfolk and Norwich University Hospitals NHS Trust.





SPEAKER'S PROFILE

DR. RAKESH KR. GOREA

Gian Sagar Medical College and Hospital, Punjab, INDIA

Dr. Rakesh Kumar Gorea is currently serving as Professor and Head in Gian Sagar Medical College, Punjab. He has excel in his expertise and serves to the best of his talent and intellectual knowledge for the betterment of society. He has vast experience in teaching and supervision of medico legal work. He contributes his skilled approach in helping and guiding numerous



Ph.D. scholars and research academicians. He has various professional societies' membership inclusive of life membership of Indo-pacific Academy of Forensic Odontology, Indian Red Cross Society, Indian Science Congress Association, Forensic Science Society of India, etc. The membership list also includes the Council of Sex Education and Parenthood International, the Arab Society of Forensic Science and Forensic Medicine, the World Association of Medical Editors (WAME), etc. He is awarded and honored with numerous achievements like the Lifetime Achievement Award by the Punjab Academy of Forensic Medicine and Toxicology, the International Journal of Health Research and Medico legal Practice, and the Indian Academy of Forensic Medicine respectively. He was also honored with IAFN Vision Award-2007 by the International Association of Forensic Nurses at Salt Lake City USA 2007. He also served as guest faculty at the University of Colorado U.S.A and Punjabi University, Patiala. He is also serving as President of the Indo-Pacific Academy of Forensic Nursing Science. He actively contributed to conducting numerous conferences and workshops. Being a versatile personality he has expertise in post-mortem and medico legal examination and reporting.



DR. GHYASUDDIN KHAN

U.P. State Medico Legal Cell, Lucknow, INDIA

Dr. Ghyasuddin Khan is a Forensic Medicine Expert and currently serving as Joint Director at U.P. State Medico-Legal Cell, Lucknow, India. He has completed his MBBS degree and later qualified as MD in the field of medicine. Now, he is pursuing Ph.D. in Forensic Medicine. He has delivered lectures in numerous conferences and seminars at University, National and International levels. Also, he has published numerous research papers in several National and International journals.





SPEAKER'S PROFILE

PROF. (DR.) AKHILESH PATHAK

All India Institute of Medical Sciences, Bhatinda, INDIA

Dr. Akhilesh Pathak is having a total Teaching Experience of 20 Years, mostly in the Government of Gujarat. He has done MD Forensic Medicine and also done Post Graduate Diploma in Health and Law (PGDHL). He is one of the recognized PG teachers and guiding Postgraduate students in the subject of Forensic Medicine & Toxicology for the last 10 years. He has



also been actively involved and gives his contribution in evaluating around 18-20 Thesis of various institutes of RUHS, MUHS, and University in Gujarat. With immense knowledge, he was also registered as Ph.D. Examiner in various universities of Gujarat and Rajasthan. During his working tenure of almost 20 years, he has conducted approximately 3500 post-mortems of numerous kinds inclusive of the Human Rights Commission. He also completed various Institutional Enquiries in the capacity of Chairman of the Board. His achievements involve nomination for Best Professor Award in Forensic Medicine and received felicitation awards at a conference of the Indian Academy of Forensic Medicine and Toxicology. Apart from this, he has numerous publications in both national and international journals under his name. He has also published the book titled "Practical Record Book of Forensic Medicine and Toxicology."





Keynote Speakers



Dr. V. V. Pillay

How Should Doctors/Toxicologists Frame Opinion in Poisoning Cases



Medical Ethics in Medical Jurisprudence



Intricacies in the Medical Certificate of Cause of Death (MCCD)



Prof. Jason Payne-James

The Medical Implications of Less Lethal Weapons



Supporting and Managing the Survivors of Rape



Dr. Akhilesh Pathak

Sample Collection for DNA Profiling During Autopsy



Dr. Ghyasuddin Khan Mode of Homicide in the Form of Suicide by Strangulation & Hanging



Day 1: 28th August 2021

Time	Topic	Keynote Speaker
09:45 to 10:30 AM IST	How Should Doctors/ Toxicologists Frame Opinion In Poisoning Cases	Dr. V V Pillay
10:30 to 11:15 AM IST	Medical Ethics In Medical Jurisprudence	Dr. Mukesh Yadav
11:15 to 11:45 AM IST Intricacies In The Medical Certificate Of Cause Of Death (MCCD)		Dr. Sanjay Gupta
12:00 to 12:30 PM IST	The Medical Implications Of Less Lethal Weapons	Prof. Jason Payne- James

Day 2: 29th August 2021

10:00 to 11:00 AM IST	10:00 to 11:00 AM IST Supporting And Managing The Survivors Of Rape	
11:00 to 12:00 PM IST	Mode Of Homicide In The Form Of Suicide By Strangulation & Hanging	Dr. Ghyasuddin Khan
12:00 to 12:45 PM IST	Sample Collection For DNA Profiling During Autopsy	Prof. (Dr.) Akhilesh Pathak



Forensic Medicine & Toxicology

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Dept. of Forensic Medicine & Toxicology, AllMS, Rishikesh



Chairing Panel Day-2

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Dept. of Forensic Medicine & Toxicology, AIIMS, Jodhpur

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Dr. Krishnadutt Chavali

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Dept. of Forensic Medicine, IGMC, Shimla



Dant Forencie Medicine

Dept. Forensic Medicine & Toxicology, Kasturba Medical College, Mangalore



Dr. Shreemanta Kr. Dash

Dept. of Forensic Medicine & Toxicology, AlIMS, Mangalagiri, Andhra Pradesh.



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Submission of Paper

- The paper should be ORIGINAL and UNPUBLISHED offering new insights, a new approach, or new knowledge to the body of literature.
- The abstract should be of a maximum of 350 words followed by a minimum of 5 keywords in the format given.
- All participants should email their respective abstracts before the mentioned deadline, 15th August 2021 at iasrforensicconference@gmail.com.

Criteria for Evaluation

- The evaluation depends upon the presentation skills, content, topic relevancy, and answers given to the jury.
- All abstracts submitted would be published in the SOUVENIR of IASR.
- The outstanding papers would be published in the Academic Journal of Forensic Science, IASR providing FREE SCHOLARSHIP.

Presentation of Paper

- The paper has to be presented in PowerPoint 2013/2010 or earlier in 16:9 ratio slides.
- A maximum of 10 slides is allowed to present. The time limit for the presentation will be 8 minutes followed by a 2-minutes discussion with video 'ON'.
- The presentation should include an introduction, material, and methodology, information regarding collected data, major findings, conclusion, etc.
- In the case of multiple authors, only one author out of the two would be allowed to present the ePoster. All Co-authors would receive the participation eCertificate as co-authors.

Format of Paper: The manuscript should follow the format:

- Title of the paper, Name, Position with Institute name, Contact no. and Email Address.
- Approximately 300 words of abstract followed by a minimum of 5 keywords along with the final paper.
- The paper should follow the font Times New Roman size 12 (Justify alignment) and heading size 14 (aligned centrally) in MS-Word Format.
- All references should follow the MLA (8th edition) style. All tables and figures should be appropriately numbered.

Guidelines for Paper and ePoster Submission

https://youtu.be/mEqdhPXAmB8



Call for ePoster GUIDELINES FOR STUDENT & PROFESSIONAL CATEGORY

Submission of ePoster

- The ePoster should include completed or ongoing scientific research, proposing innovative ideas, interesting case study, etc.
- The abstract should be a maximum of 350 words followed by a minimum of 5 keywords in the format given.
- All participants should email their respective abstracts (approximate 350 words) and ePoster at iasrforensicconference@gmail.com before the mentioned deadline, 15th August 2021.

Criteria for Evaluation

- The evaluation depends upon the presentation skills, content, topic relevancy, and answers given to the jury.
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- The ePoster has to be presented in the PowerPoint 2013/2010 or earlier in 16:9 ratio slides.
- The ePoster has to be made on a single (ONE) slide having information such as introduction, method and methodology, results, and conclusion.
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- In the case of multiple authors, only one author out of the two would be allowed to present the ePoster. All Co-authors would receive the participation eCertificate as co-authors.
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Awards

Awards for Best Scientific Paper & ePoster

The winners in both **STUDENT** and **PROFESSIONAL** category will receive: Three outstanding Paper & ePoster would receive an **eCertificate of Excellence** with **Cash Prize** in each Category



The Best Paper will be published in Journal of IASR



Registration Details

NATIONAL & INTERNATIONAL PARTICIPANTS FOR STUDENT AND PROFESSIONAL



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ePoster and Paper Participants will receive **Conference Participation** and **Competition Participation eCertificate** and Winners would also receive **Prize** along with **Certificate of Excellence**.

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Contact : +91-98188-77002

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PA 03	Dr. Azia Manzoor Bhat Dr. Wasim Manzoor Bhat	Pattern Of Intracranial Haemorrhages In Cases Of Two Wheelers Without Wearing Helmet In Fatal Road Traffic Accidents In Mangalore
PA 04	Diksha Thakur Subhra Kumar Paul Rajvinder Singh Deepa Verma	GC/MS-MS Analysis For The Detection Of Isopulegol Drug In Postmortem Specimen Of A Sexually Assaulted Victim
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ePoster Category

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Paper Category

SEX DETERMINATION FROM DIGITAL RADIOGRAPHS OF COSTAL CARTILAGE A CROSS SECTIONAL STUDY

Shama Patyal¹, Tejasvi Bhatia²

¹Radio-technologist at Govt. Hospital Nadaun Hamirpur (HP) Research Scholar (PhD) Department of Forensic Science, Lovely Professional University, Jallandhar. patyalshama@gmail.com

²Assistant Professor, Department of Forensic Science Lovely Professional University, Jallandhar tejasvi.25999@lpu.co.in

Abstract

The aim of our article was to study the pattern of calcification of costal cartilage with the aid of digital radiographs in male and female. PA chest digital radiographs were taken and with the help of software IMAGEWORK radiological evaluation of calcification pattern were done. With the help of IMAGEWORK we can alter the contrast, magnify the radiograph, can increase or decrease the sharpness and brightness that help in greater visualization and help in better evaluation on type of pattern as compare to conventional mean. Other advantage is it is cost and time efficient. Three distinct patterns of calcification were observed in our study. In males' peripheral type of calcification was dominant where as in females' central type was more seen. Mixed type of pattern was more common in age group 20- 40. In males at age of 16 calcification was noted whereas in females at age of 18.

Keywords: Digital radiographs, costal cartilage, calcification, sexual dimorphism.




REVIEW OF MEDICOLEGAL ISSUES IN COVID 19 PANDEMIC IN INDIA

Dr. Vinka Maini¹

¹Lecturer, Department of Forensic Medicine & Toxicology GMC, Jammu

Abstract

Due to accelerating and increasing spread of the COVID -19 pandemic worldwide, overriding a lot of axioms on which the medical practice was based from years ago, that led to controversy and the emergence of controversial medico-legal issues. In the present review, the literature search was done by the online search, conducted using different electronic databases & the articles which were published in the English language were selected. Special circumstances justify special measures and when such extraordinary measures are undertaken, there is always a chance of errors resulting in collateral and unintended damage. Medical ethics issues such as confidentiality and maintaining professional secrecy while treatment, accelerated attempts to secure a coronavirus vaccine triage criteria in situations with scarcity of resources are noted. Certain medical responsibility and malpractice issues such as refusal for examination and diagnosis by a physician, standard of care, medical error, medical malpractice, biosafety measures in the hospitals & rights of the patient of COVID -19 were also noted worldwide. Forensic experts faced issues regarding autopsy conduction of COVID-19 cases, biosafety measures while conducting autopsy, sample collection & transportation& ethical issues when the forensic expert is sharing the pathological findings to medical community. We concluded that balance of efficiency and innovation is a pressing priority. The hospitals, professional regulatory bodies, and governments must ensure and provide the necessary resources, to protect the staff caring for the infected patients. There is need of specific standard operating procedure (SOP) documents, based on the available government and regulatory body guidelines AND strengthening in areas of telemedicine, autopsies in the COVID-19 cases by institutes.

Keywords: COVID19, Forensic investigation, autopsy, medico legal issues, medical ethics.



PATTERN OF INTRACRANIAL HAEMORRHAGES IN CASES OF TWO WHEELERS WITHOUT WEARING HELMET IN FATAL ROAD TRAFFIC ACCIDENTS IN MANGALORE

Dr. Azia Manzoor Bhat¹, Dr. Wasim Manzoor Bhat²

¹Assistant Professor and I/C Head, Department of Forensic Medicine and Toxicology, Government Medical College Anantnag, Jammu and Kashmir. Email: aazimmanzoor@gmail.com

²Senior Resident, Department of Dentistry, SKIMS Soura, Jammu and Kashmir.

Abstract

Deaths due to road traffic accidents are one of the common forms of unnatural death and its history is as old as the invention of the wheel. The head and other vital organs when injured leads to fatal involving blunt trauma which may be accidental, suicidal or homicidal. Extensive and indiscriminate use of vehicles for different purposes has increased the nature of assaults and accidental fatalities. This study was conducted to know the pattern of intracranial hemorrhages in cases of two wheelers without wearing helmet in fatal road traffic accidents in Mangalore. All cases of road traffic accidents involving fatal head injuries among two wheelers which underwent autopsy at the Wenlock District Hospital and Justice K.S Hegde charitable Hospital, Mangalore from January 2009 to December 2013 were included in the study. A proforma was prepared accordingly to collect the data based on the deceased's particulars, with complete external and internal examination in retrospective studies of those involved in fatal head injury cases due to road traffic accidents. The details about the pattern of skull fractures and also about intracranial haemorrhages were obtained and entered in the proforma. Out of total 101 cases of RTA with two wheelers 91.09% had not used helmet while only 8.91% were wearing helmet. Majority of the cases (36.96%) not using helmet were 20-29 years of age. Among helmet non users 94.57% cases were male. Subarachnoid haemorrhage (83.7%) was the most common type of intracranial haemorrhage followed by subdural haemorrhage (70.65%) was observed. Contusion (32.61%) was most common type of Brain Injury observed among non-helmet users followed by Oedema (27.17%) was observed. Among the non-helmet user victims diffuse brain injury was seen in 30.43% cases while frontal lobe was involved in 26.09% cases. Thus we conclude that subarachnoid haemorrhage and Sub Dural hemorrhage was the most common intracranial haemorrhages in cases of two wheelers without wearing helmet in fatal road traffic accidents in Mangalore.

Keywords: Intracranial hemorrhages, fatal road traffic accidents, two wheelers without wearing helmet, Brain Injury, Mangalore.



GC/MS-MS ANALYSIS FOR THE DETECTION OF ISOPULEGOL DRUG IN POSTMORTEM SPECIMEN OF A SEXUALLY ASSAULTED VICTIM

Diksha Thakur¹, Subhra Kumar Paul², Rajvinder Singh¹, Deepa Verma²

¹Department of Forensic Science, Maharshi Dayanand University, Rohtak, Haryana, India

²Forensic Science Laboratory, Rohini, New Delhi, India

Abstract

Modern society is witnessing a considerable ascend of sexual assault against women in India by using several illicitly abused psychoactive substances. This paper presents identified novel drug named as *Isopulegol* in the post-mortem samples of rape victim who later committed suicide. GC/MS-MS analysis was conducted on the extracts of post-mortem specimen of the deceased. These short scientific findings can be of immense significance for the forensic toxicologists dealing with such legal cases and forensic chemist or a drug analyst to explore novel drugs with abuse potential. It is also expected that further scientific researchers can be carried out on other novel psychoactive chemical substances or their derivatives illegally circulating in commercial markets. The scientific as well as public societies need to be attentive about such types of drugs and their misuses. Due to widespread availability of illicitly abused substances or commercially manufactured products based on psychoactive substances or its components as precursor molecule in broad spectrum, an upsurge in Drug facilitated crimes (DFCs) has been reported that has raised community consideration. Isopulegol is a cannabis plant, terpene based alkaloid used as a precursor chemical for menthol's manufacture. Forensic examination of a reported case unearthed this plant alkaloid has potential to depress central nervous system of an individual, enabling it to be used for offence expedition. This article underlay the objective to generate public awareness peculiarly among females about substances with potency to facilitate sexual assaults as this is critically needed. Furthermore, scientific researchers can carry out research on this drug or identify other novel chemical substances or their derivatives circulated in commercial markets that are misused by the population for accomplishing vicious intentions. It is believed that envisioning the substances with possibility of abuse and dissemination of information in this regard to scientific or public community may prepare us efficiently to circumvent the conditions that may obstruct the passage of justice to be delivered.

Keywords: Forensic toxicology, Isopulegol, Menthol, Drug facilitated sexual assault, postmortem specimen analysis.

GENDER PERSPECTIVE OF LINGUAL IMPRESSION- A CROSS SECTIONAL STUDY

Dr. Ankur Bhargava¹

¹Reader, Department of Oral Pathology & Microbiology, Hazaribag College of Dental Sciences & Hospital, Hazaribag. Email: drankurbhargava@gmail.com

Abstract

Identification plays a major role in any crime investigation. Study of tongue prints has been recognized and accepted as gold standard for personal identification worldwide now a day. Tongue printing has not only come up as a novel biometric tool but can also be trusted upon as a powerful forensic tool. Research works have been carried out on tongue print independently. However, studies focusing on morphology or shape of tongue have not been undertaken to a great extent. The present research was taken over the people to study and analyse the morphological shape of the tongue and demonstrate their importance as an aid in sexual dimorphism. A total of 100 dental students with age group ranging between 18-25 years were included in the study. For the study clinical examination, photographs and lingual impressions were taken of the tongue. In the current study, of shape of the tongue for gender identification we used two classifications. According to TCM criteria 5 tongue shapes we used for gender identification: rectangle, acute triangle, obtuse triangle, square, and circle. Among the 100 subjects, the square-shaped tongue was predominantly seen, followed by circle, obtuse triangle. In the second criteria Stefanescu CL et al. classified tongue into 2 shape U & V shape. When the tongue shape was analyzed 'U' shape was seen in 79 individuals and 'V' shape in 21 individuals out of 100 subjects. Hence, the study concluded that tongue prints showed a qualitative result among different sex groups. It can be opined that the human tongue promises to deliver a level of uniqueness in morphological shape and is suitable for the use in gender identification.

Keyword: Lingual impression, sexual dimorphism, forensic odontology.



QUANTITY OF DNA EXTRACTED FROM TISSUES PRESERVED IN FORMALIN AND ETHANOL - A COMPARATIVE STUDY

Jyoti Gullaiya¹, Dr. Naresh Kumar² and Dr. Neeharika Srivastava³

¹Research Scholar, School of Basic and Applied Sciences, GD Goenka University, Haryana

²Senior Scientific Officer, Forensic Science Laboratory, Delhi

³Assistant Professor, School of Basic and Applied Sciences, GD Goenka University, Haryana

Abstract

A biological evidence found at a crime scene is extremely crucial in the Court of Law. It paves the way for the police to get the culprit arrested, but this can only be possible if that evidence has been properly collected, preserved, documented and processed. In many important fields of research, which includes forensic analysis, victim identification in cases of mass disaster, identification of culprit in sexual assault cases, histopathological studies etc., and nucleic acids extraction from preserved biological tissue specimens is of prime importance. They are generally in the form of formalin-fixed paraffin embedded tissue. Formalin is known as the "gold standard" in tissue preservation. It has great embalming and antiseptic properties. Due to the inability of formalin in protecting the DNA from damage, the desired outcome cannot be obtained. Previous studies have described various preservatives which aids in the preservation of such tissues. We present ongoing work to understand the difference in the quantity of DNA extracted from tissues preserved in two different preservatives- 10% neutral buffered formalin (NBF) and ethanol (100%) so that better preservative, which produce good yield can be adopted. In this study, soft tissue specimens were preserved at 4°C for a period of 100 days. Organic extraction was done on the preserved tissues. ABI Trio Kit was used for the quantitative and qualitative assessment of DNA. The results represented that formalin preserved tissues did not produce required amount of DNA for profiling. The ethanol preserved samples yielded good amount of DNA comparatively. The study concluded that preservatives such as ethanol can be used as a safer and effective alternative to formalin. Different concentration of ethanol can further be tested in regards of better yield in extraction of DNA.

Keywords: Ethanol, formalin, tissue preservation, DNA yield, preservative.

DIGITIZATION OF DISABILITY CERTIFICATION USING TECHNOLOGY TO CURTAIL INFRINGEMENT OF DIGNITY

Dr. Nishat Ahmed Sheikh¹

¹Associate Professor Forensic Medicine and Toxicology, All India Institute of Medical Sciences Gorakhpur. State Uttar Pradesh. 273010.

Abstract

Privacy and dignity are the rights of every human being. The disability certificate issued has the medical diagnosis mentioned explicitly as well as the patients' photograph. A person with disability needs to produce a certificate to avail the benefits, which the law of the land accords. This article discusses the dignity and privacy issues, which may be felt while producing such a certificate before competent authorities and proposes a blinded disability certificate. Besides, the proposed certificate uses advanced technologies to link a functioning profile to a cloud-based central database.

Keywords: Dignity, Privacy, Disability, Digitization.







DISASTERS ARE INEVITABLE

Dr Juhi Yadav MDS¹

¹Professor, Department of Dentistry, Govt Allopathic Medical College, Banda up India Email- drjuhiyadav@yahoo.com

Abstract

Disasters and human existence go hand in hand. Disasters causes disruption of normal functioning of the society causing losses of human lives , materials , other living beings , environment and many more . Disasters can occur in one of the forms like plane crashes, fires, bush fires, terrorist attacks, natural disasters like earthquakes, tsunamis, communal fights and in many other forms. So according to site and involvement of human beings disasters are categorized and then human life rescue operations are being done. In today's world there is no boundary of human travel so in this scenario the work of forensic anthropologist is even more challenging. Forensic anthropologist have to follow certain guidelines as laid down by many organizations while handling the disaster victim identification as identification of humans is the most difficult task . They use PM and AM data, imaging techniques, DNA profiling and many other techniques which gives any hint for identification. So my oral presentation will cover disasters, disaster victim identification methods and latest in DVI.

Keywords: Disaster, Disaster victim identification, Post mortem data, Ante mortem data, Bayesian approach.





FABRICATED HISTORY CONVEYED BY THE VICTIM TO THE FORENSIC CLINICAL PRACTITIONER - CASE REPORT

Sahil Thakral¹, Raghvendra Singh Shekhawat¹, Sarthak Aeron¹, Chaitanya Mittal¹

¹Department of Forensic Medicine and Toxicology, All India Institute of Medical Science, Jodhpur, Rajasthan, India

Abstract

History forms the main basis of examination but false fabricated and cooked-up history given by the victim to the forensic clinical practitioner has a direct impact on the final medico-legal opinion. It can lead to the wrong opinion which misleads the court to administer the justice. The Forensic clinical practitioner asks for the detailed history of the victim and external physical examination and also takes into consideration the radiological reports, clinical records, and information be given by the police before giving a final opinion. This is a case of 29 years old male who came with an alleged history of physical assault with the rod and a firearm weapon. The history given was that he was shot by his cousin's brother, one bullet was at left leg and two bullets at right leg and was beaten by the rod. But the history given does not match with external features of the injuries and no foreign body is present inside the victim's body on radiological examination, and no exit wound is found on the victim's body on physical examination. In this case report, the authors explain how to rule out the fabricated history and to make the fair medicolegal opinion truly based on the facts show in the external physical examination, radiological examination, and clinical records. The authors advise all forensic clinical practitioners that be aware and never rely completely on history given by the victim.

Keywords: Forensic Clinical Practitioner, Fabricated history, Medico legal opinion, Physical Examination, Radiological Examination





A THREE YEAR RETROSPECTIVE STUDY OF AUTOPSY CASES CONDUCTED AT MEDICAL COLLEGE IN NUH DISTRICT OF HARYANA

Dr. Rajeev Kumar¹, Dr. Sahil Sharma², Dr. Kapil Yadav², Dr. Praveen Dixit²

¹Professor and Head, Department of Forensic Medicine, SHKM Govt. Medical College, Nalhar, Nuh – 122107.

²PG Resident, Department of Forensic Medicine, SHKM Govt. Medical College, Nalhar, Nuh – 122107

Abstract

The medico-legal autopsies form an integral and indispensable part of an investigation of a sudden suspicious death. The profile of medico-legal autopsy cases is important to know the death statistics due to unnatural causes in a particular region and also help to address the demographic needs according to the mortality statistics specific to that region. The present study is a record based study of autopsies performed at the tertiary healthcare center in Mewat, Haryana, and the most backward region of India. During the period of study i.e. 1st January 2018 to 31st December 2020, 404 cases came for autopsy in our institute. This study was conducted to determine and evaluate the socio-demographic profile of different types of cases and to assess the cause of their death and pattern of autopsies in our institute. Out of 404 cases, Male cases predominated over the female cases, which were 269 (66.58%). Muslims were majority in number with 214 cases (52.98 %). Maximum numbers of deaths were due to poisoning with 122 cases (30.19 %) followed by road traffic accident cases which were 112 (27.72%).

Keywords: Autopsy, Poisoning, Road traffic accidents, Hanging, Strangulation, Assault, section 174 CrPC, section 176 CrPC.

HOMICIDAL DEATHS IN SOUTH-WEST DELHI AND NCR: A RETROSPECTIVE STUDY

Sanjay Kumar¹, Aditya Anand², Munesh Sharma³, Lakhan Lal Navlani⁴, Divya Sharma⁴, Dr G A Sunil Kumar Sharma⁵

¹Professor, Department of Forensic Medicine & Toxicology, VMMC & Safdarjung Hospital, New Delhi

²Senior Resident, Department of Forensic Medicine & Toxicology, VMMC & Safdarjung Hospital, New Delhi

³PG Std. (2nd year), Department of Forensic Medicine & Toxicology, VMMC & Safdarjung Hospital, New Delhi

⁴PG Std. (3rd year), Department of Forensic Medicine & Toxicology, VMMC & Safdarjung Hospital, New Delhi

⁵Director, Prof. & HOD, Department of Forensic Medicine & Toxicology, VMMC & Safdarjung Hospital, New Delhi.

Abstract

Killing of a human being by another human being is homicide and it is defined in the section 299 of Indian Pinal Code. A total of 28,918 cases of Murder were registered in 2019 showing a marginal decrease of 0.3% over 2018 cases (29,017 cases) with dispute, personal enmity and gain being the main motives. The present study comprises of 115 victims of homicide whose autopsy was done at Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi to find out trends in homicides in South west Delhi and the surrounding areas of NCR's. The commonest age group of victims was in between 21-30 years corresponding to 36 deaths (31.29%). Head was most common region sustaining fatal injury leading to death in maximum cases. The most common mode of homicide was impact due to hard and blunt weapon in 65(56. 53%) deaths followed by sharp/cutting injuries in 13(12, 17%) deaths. Cause of death was found to be Head injury in 62 cases (53.21%) followed by septicemia in 19(16.52%) cases. Majority of victims were male (78.26 %) with most common age group was third decade of life (21-30 years) and mostly died due to blunt force impact to head. Our study showed more burn victims and more survival period compared to other studies.

Keywords: Homicidal deaths, Survival Period, Firearm injury, Blunt and Sharp force and Septicemia.

CASE REPORT: HOMICIDE DISGUISED AS SUICIDE

Dr. Abhishek Parashar¹

¹Junior Resident academic, Department of Forensic Medicine & Toxicology, AIIMS, Patna.

Abstract

We received a female body aged about 26 years, at the mortuary of our institute, there was a history of domestic violence and on inquest cause of death was assumed to be due to hanging and further investigation was requested. On external examination we were not able to rule out the inquest's findings although a suspicion was raised seeing a deep electric burn on the greater toe of the right leg but on internal examination the story changed. In spite of no external signs of struggle of injury there was major bleeding in the abdominal cavity due rupture of liver and eventually coming out to be primary cause of death. Hence autopsy examination playing a major role in delivery of Justice.

Keywords: Domestic violence, Inquest, hanging, external examination, internal examination, signs of struggle, cause of death.





Dr. A. Haricharan¹, Dr. Salam Bitam Singh², Dr. Kh. Pradip kumar Singh³, Prof. Th. Meera Devi⁴

¹PGT, Department of Forensic Medicine & Toxicology, Regional Institute of Medical Science, Imphal

²Senior Resident, Department of Forensic Medicine & Toxicology, Regional Institute of Medical Science, Imphal

³Assistant Professor, Department of Forensic Medicine & Toxicology, Regional Institute of Medical Science, Imphal

⁴Head of Department, Department of Forensic Medicine & Toxicology, Regional Institute of Medical Science, Imphal

Email id: haricharanpr@gmail.com

Abstract

Extradural hemorrhage (EDH) is a potentially lethal complication of head injury, however, it is the most readily diagnosed and remediable form of traumatic intracranial hemorrhage. It usually occurs at the site of impact as a cause of death is extremely rare with only a few cases being reported till now. In this paper, a rare case of fatal traumatic delayed EDH (subacute) brought as sudden death has been reported. The interesting aspect of the case is that the death occurred while the person was standing in a queue for covid-19 vaccination after a gap of two weeks following a road traffic accident. Gross inattention to one's own health supplemented with depressed conscious level under the influence of alcohol resulted in the fatal outcome, which was otherwise avertible. The case has been presented considering its unusual presentation and rarity.

Keywords: Extradural haemorrhage, alcoholism, delayed death.



LIGATURE MARK OF HANGING OR STRANGULATION? A DIAGNOSTIC DILEMMA! - A RARE CASE STUDY

Dr. Vishal Maurya¹, Dr Srayash², Dr Shrabana Kumar Naik³

¹2nd year Junior Resident, Department of Forensic Medicine and Toxicology, Lady Hardinge Medical College and Smt. SK Hospital, New Delhi, INDIA

²3rd year Junior Resident, Department of Forensic Medicine and Toxicology, Lady Hardinge Medical College and Smt. SK Hospital, New Delhi, INDIA

³Director Professor, Department of Forensic Medicine and Toxicology, Lady Hardinge Medical College and Smt. SK Hospital, New Delhi, INDIA

Abstract

Among the asphyxia deaths, differentiating ligature mark of strangulation from ligature mark of hanging can occasionally pose challenge to any forensic medicine expert across the world. But as ligature strangulation is presumed to be homicidal whereas hanging is presumed to suicidal in manner, those two conditions must be differentiated with conviction for proper administration of justice. As both ligature strangulation and hanging are asphyxia deaths caused by constriction of the neck by any ligature material, the resultant external evidence left on the neck i.e., ligature mark simulates a lot barring differentiation caused by the factor 'suspension'. Level of ligature mark on the neck, discontinuity and obliquity along the course of ligature mark are three main criteria commonly used to differentiate ligature strangulation from hanging during external examination. Obliquity along the course of ligature mark which is directly related to the factor suspension is found almost in all cases of hanging, but almost not found in case of ligature strangulation. Here the author presents a case of alleged accidental ligature strangulation by the wearing scarf while the 35-year-old female victim was moving over a cycle rickshaw. The ligature mark on the neck of the deceased was situated above the level of laryngeal prominence, discontinuous and placed obliquely. Internal findings were nothing suggestive. Hence, concluding the cause of death from the autopsy findings was a dilemma. However, luckily, availability of CCTV footage of the alleged incidence, solved the case.

Keywords: Ligature strangulation, Hangin, Ligature mark, Level, Discontinuity, Obliquity, CCTV footage.



Anushka Mukherjee¹

¹Department of Forensic Science, Lovely Professional University, Phagwara, Punjab, India

Abstract

Bruises are a form of under-the-skin bleeding. Capillaries are small blood vessels that can be broken by a violent impact, such as falling or colliding with a heavy item. This results in bleeding in the injured region. The region may enlarge and appear red or blue since the bleeding occurs under the skin. Bones and soft tissue are susceptible to bruises. Flying insects and beetles that may burrow deep into your skin might cause bruising which can resemble contusions in appearance. We can observe some instances where different insect stings resulted in bruise-like marks as a result of the body's antibodies reacting with the insect's saliva, however I have yet to come across any cases where individuals employed these bug bite bruises as contusion marks. At each phase, I took photographs of some of the insect bite bruise markings and photographs of contusion marks to check if they resembled one other or not. We must use the bruise dating method to establish the age of the injury since it varies with time in order to verify the contusion markings. Bug bite bruises, on the other hand, do not change colour over time. On the other hand, if we magnify the bug bite bruise, we may be able to detect the insect's sting injury at a certain location. We got the results from the preceding experiment that many insect bite bruises resemble contusion markings, however we should not draw any conclusions solely on the marks we see with our naked eyes. We should also zoom in on the markings to check whether any sting injuries are apparent. My research concludes that contusion markings resemble physical torture, but in the event of a false allegation, such bug bite bruises can be used to register false charges against anyone.

Keywords: Bug bite bruise, contusion, differentiation, false allegations, justice.





SUDDEN DEATH SECONDARY TO AN UNDIAGNOSED NON HODGKIN LYMPHOMA

Pankaj Pathania¹

Junior Resident 3rd year

Email id: pankajpathania288@gmail.com

Abstract

The aim of this presentation was to share the uncommon form of sudden death suffered by 44 years female was died due to due to haemato-lymphoid malignancy. A forensic approach by means of history, autopsy, histopathological and toxicological investigations led to conclusion that the cause of death was subarachnoid haemorrhage at the level of brainstem. The histological analysis showed the essential finding of Non Hodgkin Lymphoma. To reach a correct cause of death in absence of specific data, forensic approach is a must, to be viewed through the eyes of forensic medicine specialist.

Keywords: Haemorrhage, haemato-lymphoid malignancy, brainstem, Non Hodgkin Lymphoma.





ePoster Category

NOVEL METHOD OF STATURE ESTIMATION UTILIZING ANTHROPOMETRIC MEASUREMENTS IN INDIAN POPULATION

Dr. Nandita K.P¹

¹Department of Oral Pathology & Microbiology, Manipal College of Dental Sciences, Mangalore, Manipal Academy of Higher Education, Manipal, Karnataka, India-575001

Abstract

Forensic Anthropology is the analysis of human remains for the medico legal purposes to establish identity of individuals in mass disasters (such as fire accidents, explosions and aircrafts and railway accidents) and to investigate suspicious deaths. In forensic scenario, the four essential factors represented in determining personal identification are age, sex, stature and ethnicity. Among this 'big fours' of the biological profile, determination of stature is considered as one of the main parameter. Thus, this study aims to correlate relation between craniofacial dimensions, along with odontometry and also hand and foot measurements (length and breadth) with stature of individual. The study aims to estimate the stature of an individual on the basis of craniofacial dimensions, hand and foot measurements in Indian populations and assess the best method for identification. The height was measured along with hand and foot measurements and head circumference. The data was analyzed using linear Regression Analysis using the SPSS software. According to Pearson correlation foot length was considered the best individual predictor when gender was not known. In females foot length (r=0.506) and in males head circumference (r=0.998) was considered to be the best predictor for estimating the height of the individual. Thus, this study determines the accuracy of hand and foot measurements along with cephalic measurements in estimating the stature of individuals by generating various formulas.

Keywords: Forensic Anthropology, Stature, Hand and foot measurements, Cephalic.



THOUGH CAN'T PREVENT - COULD HAVE AVOIDED

P.Chandrasekar¹, R.Selvakumar²

¹Assistant Professor, Govt. Kilpauk Medical College, Chennai-10

²Professor and HOD, Govt. Kilpauk Medical College, Chennai-10

Abstract

Scaphocephaly-a type of Craniosynostosis, which is due to premature closure of sagittal suture restricts medial-lateral growth of the cranial vault which appears longer and narrower than normal, resulting in abnormal development of Brain tissue. Premature closure of the sagittal suture occurs as an isolated (non syndromic) birth defect or as a syndromic anomaly in combination with other congenital dysmorphologies. The genetic causes of sagittal non syndromic craniosynostosis (NSC) remain unknown. Although Scaphocephaly is more common in male child, here we had seen this in a female child. Two years old female child with birth history of 1st born child of consanguinously married couple, with irregular antenatal checkups, born by normal vaginal delivery, found to have delayed development, investigated for the same. Child was brought fot postmortem examination after being hospitalised for seizures and respiratory tract infection. Here we had seen a case of Scaphocephaly with abnormality in brain tissue. Though not associated with syndromes baby had all signs and symptoms related to damaged brain. Two years of struggle of the baby and lifelong pain of parents could have been avoided if there was proper antenatal care.

Keywords: Craniosynostosis, Scaphocephaly, Saggittal suture, delayed development.





TOXICOLOGY REPORTS OF THE HUMAN REMAINS FROM THE MIDDLE AGE TURKEY

Prof. Dr. M. Ali Hacıgökmen¹, Arch. Emel Akpolat¹

¹Institute of Seljuk Researches, Selcuk University, Konya, Turkey

Abstract

The usage of toxins dates back to the rudimental ages. Arrows with poison covered tips were used to kill predators and enemies, heirs trying to kill their ancestors to inherit the throne, and so forth. These poisons are camouflaged with the flavour of the drinks and food that are presented to the potential victim. Poisons were a viable option for culprits due to its nature and could be posed as accidental deaths/suicides. In the Medieval Ages, intoxications date back to Caesar's Roman Empire. In the sake of their virtues like dignity or esteem, narcissistic culprits who most probably use this method of murder to hide behind the deceiving nature of a death caused by poisoning. However, from the perspective of the origin, poisonings are mostly accidental, sometimes suicidal and seldomly homicidal. This research that we are working on focuses around an individual who is a prominent figure in the Medieval Turkey and one of the names that gave shape to today's world order. Osteometrical measurements show that the subject is at an average weight of 75 kilograms (163.5 lbs.) and approximately 1.75 meters (5'9 inches). Due to a reasoning that happened right before the victim's death which revolved around his eldest son not being the heir to the throne, this complicated homicide turned into a case that got wrapped up in political conjectures and motivations. It's safe to assume that this was a premeditated murder that was carried on by this particular eldest son. Poison was injected through a meal that was the subject's favorite food, and so the victim's guards who were meant to check everything were involved in the plot of the murder. Fragment samples taken from the cranium, costa and vertebra of the victim; the following elements were detected within the bone tissue: antimony, arsenic, barium, mercury, cadmium, cobalt, lead, molybdenum, nickel, thallium, vanadium (using the test, ICP/MS). Cyanide (potassium and/or sodium) were not traced or found in the samples. The culprit, who is the biological son of the victim, has no direct access to such heavy metals and we concluded that he most probably took these substances from the victim's workshop where he happened to occupy himself with the alchemical pastimes that he preferred to work with most of the time.

Keywords: Osteometrical measurements, homicide, intoxications, camouflaged, vertebra.



A CASE OF SUICIDE PACT

Dr. G.Deva Raju¹

¹Associate Professor, Gandhi Medical College, Secunderabad

Abstract

This is a case of entire family committing suicide due to financial problem. A nuclear family of 4, living in a single room rented house and eking out livelihood as an Auto driver. He took finance from a private party and not able to repay in time due to Covid-19 lockdown. The day before death he was bet by them for not paying money back. He felt insulted and decided to go to his native place in that night. As the debtors had stayed watch on him to prevent escape sitting in his auto, they cannot move out. When police arrived upon complaint by neighbors, they found the husband hanging with a 2 page suicide note attached to the rope and children and wife sleeping on bed all having a ligature mark on their necks. Police suspected Murder with Suicide. Autopsy revealed all had committed Suicide. However, the mobile photos sent by the deceased to his friend had confirmed that all had committed suicide by hanging only.

Keywords: Suicide pact, suicide, hanging, ligature marks, mobile photos.





SUICIDE BY ELECTROCUTION: A CASE STUDY

Dr. Shrayash Singh¹, Dr. Vishal Maurya¹, Dr. Sunil Kushwaha¹, Dr. Vivek Chouksey¹

¹Department of Forensic Medicine, Lady Hardinge Medical College, New Delhi

Abstract

Suicide incidence has increased considerably during the COVID-19 pandemic due to prolonged lockdown, health issues, death of friends and family, job losses, etc. Usual methods employed for the purpose of ending one's life include hanging by ligature, poisoning, firearm, fall from height, etc. Electrocution is one of the rarest modes of suicide. A 26-year-old male was found dead on a bed in a hotel. This is a rare suicidal death by putting a live electric wires tied around left wrist and right great toe and switched on the current by plugging the switch into socket near the side of bed. There were linear electric contact wounds around the left wrist and right great toe and wrists with crater formation. Since he checked in alone in hotel, his death was noticed after a considerable time by which time some putrefaction had taken place. This death highlights the need of supervision and close watch towards the self-harm behaviour by use of electricity especially by children and people with psychiatric illness. This case highlights the unusual method adopted by an adult male to end his life.

Keywords: Electrocution, Electric Burns, Crater Formation, Death, Self-Harm.





TOXICOLOGICAL ANALYSIS PROCEDURES FOR ACONITUM ALKALOIDS AND THEIR METABOLITES FROM BODY FLUID/TISSUE IN FORENSIC TOXICOLOGY - A REVIEW

Dipak Kumar Mahida¹, Ankita Patel¹

¹Department of Biochemistry and Forensic Science, Gujarat University, Ahmedabad, Gujarat

Abstract

Aconitum alkaloids mostly derive from the aconitum plant family considering highly toxic plants in northern Asia, Europe and North America. Aconitum alkaloids are known to be one of the most fatal toxins due to their cardiotoxic effects. Identification of this toxin and their metabolites has great importance in forensic and clinical science. This poster reviews toxicological analysis procedures for aconitum alkaloids and their metabolites in forensic toxicology using various analytical techniques (LC-MS-MS, GC-MS, TLC and HPLC). Studies from 2000 to 2021 have been taken into consideration. Extraction and analysis in biosamples (whole blood, serum, urine, stomach content, bile, cerebrospinal fluid (CSF), pericardial fluid and feces) including following compounds : aconitine, mesaconitine, hypaconitine, lappaconitine etc. are included. Basic details summarized in tables including work-ups and validation information.

Keywords: Aconitum alkaloids, Toxicological analysis, LC-MS-MS, Biosamples, Metabolites





ROLE OF CRIME SCENE INVESTIGATION IN COLLABORATION WITH AUTOPSY REPORT TO KNOW THE CAUSE AND MANNER OF DEATH IN EXHUMED CASE

Dr. Gopal Sharma¹

¹Resident PG 3rd year, Dept. Of Forensic Medicine and Toxicology, Pt. B. D. Sharma PGIMS, Rohtak.

Abstract

Observation of scene of death leads to a cycle of hypothesis creation and testing with collaboration of other information leads to final outcome of cause and manner of death. Case Study: On 21/07/2019, a male body aged around 1 year 11 months was brought to the mortuary of Pt. B. D. Sharma PGIMS, Rohtak for medicolegal post mortem examination after exhumation. Body was referred from CHC by medical officers on the grounds of advanced stage of decomposition of the body. Crime scene investigation by local police was done and cause of death ascertained as fall of a loosely placed brick wall on the head of the deceased. Multiple fractures of skull bones were present with depression at places. The skull fractures were linear and diastatic type. Brain was turned to a pasty material with haemorrhagic tinge due to decomposition. Complete posterior transverse serial fractures of right side 5th 6th and 7th rib. By following circumstantial evidences and crime scene investigation there was a rumble of bricks and concrete present at the scene of death. In this case after going through all the evidences collected from scene of death and statements of relevant persons, the manner of death given was due to accident i.e. fall of wall on head of deceased and cause of death in this case was injuries to head due to blunt force trauma.

Keywords: Putrefaction, crime scene investigation.





A CASE REPORT ON ADIPOCERE FORMATION

Dr. Manjeet Singh Kaviya¹, Dr. V.D. Bijawat²

¹Resident, Dept. Of Forensic Medicine, JLN Medical College, Ajmer

²Asso Prof, Dept. Of Forensic Medicine, JLN Medical College, Ajmer

Abstract

Adipocere formation is specialised post-mortem change which is characterised by formation of soft, waxy material in dead body. It is quite common change seen in the hot and humid climate and further amplified by content of fatty tissue within the dead body. It can be easily detected during autopsy due to its colour, smell and other properties. It helps in ascertaining time since death & Identification of the dead body can be possible as reasonable features are preserved. Injuries inflicted can be figure out, so helps in forming a cause of death. In present case the time of burial is known and dead body showed peculiar characteristic of fresh adipocere formation. There was complete adipocere formation seen over the body.

Keywords: Adipocere formation, post-mortem change, Adipocere properties, medicolegal importance.





ROLE OF CONSENT IN MEDICAL PRACTICE

Dr. Priti singh¹, Dr. Luv Sharma²

¹Resident, Department of Forensic Medicine, Pt. B D. Sharma PGIMS, Rohtak.

²Professor, Department of Forensic Medicine, Pt. B D. Sharma PGIMS, Rohtak.

Abstract

Consent is an especially important issue for all the medical practitioners while dealing with their patients. Every adult human being with sound mind has a right to know about what shall be done with his own body and a doctor who performs any procedure without patient's consent commits an assault for which he is liable in damages. The term consent means agreement, compliance, or permission given voluntarily without compulsion. Consent is always required for examining a patient for therapeutic purpose or while preparing a medico legal report. All the pros and cons of procedure must be explained to the patients in vernacular language. Ignorance of law is not a defense in legal cases, so all medical practitioners should be aware of their duties regarding consent in clinical setting. Just taking signature of patient on consent form without proper explanation and understanding of him is violating entire process of informed consent. If a doctor does not explain the required information to patient before asking for his consent for any procedure or operation, he may be charged for negligence. Through this poster, I am going to discuss few points regarding the consent and its importance in routine practice following which we can prevent ourself ending up in negligence zone.

Keywords: Consent, Informed Consent, Blanket consent, Negligence, Vernacular.





DENTAL AUTOPSY, A NEGLECTED NECESSITY

Dr. Dhimi Nongmeikapam¹

¹Department of forensic odontology, JSS Dental College and Hospital, JSSAHER, Mysore, Karnataka.

Abstract

The dental autopsy is the post-mortem examination of the oral structures to identify the deceased and aids in finding the possible cause of the death. In India, dental autopsy is most often not performed during a post-mortem examination. The enamel of our teeth, the hardest tissue, can resist harsh environmental effects such as fire, desiccation and decomposition. Hence, oral autopsy plays a significant role in identifying disaster victims, severely distorted unidentified cadavers, and skeletonized remains by comparing ante-mortem and post-mortem records and extracting DNA from dental pulp. Dental autopsy aids in solving cases of death by drowning, strangulation, poisoning, rape cases, infanticide, and others. Nevertheless, its practice is almost nil despite its importance due to a lack of knowledge, awareness and few dentist training in forensic odontology. If the practice of dental autopsy is made mandatory, it will be of great help in delivering justice to the victim without delay, narrowing the search, thereby saving time for the police personal in achieving positive identification. For a postmortem examination to be considered complete, a dental autopsy should be performed. With the emerging growth of forensic odontology, the importance of dental autopsy is gaining acknowledgement in playing a vital role in solving the mysteries of death. There is need to spread awareness and train more forensic odontologist in dental autopsy, so as to increase the number of positive identity established. This will aid in a better outcome in both humanitarian and well as the field of medical jurisprudence.

Keywords: Post-mortem, Dental Autopsy, Victim identification, Forensic Odontology, Humanitarian.



NOXIOUS NITROGEN

Aastha Mahna¹

¹Amity institute of forensic science, Amity University, Noida, Uttar Pradesh

Abstract

A drink or dessert that has cold smoke billowing from it looks so cool! It's just kind of act that can be visualized performed by FOODIES across the world and also has been picked up in a major way in India as well. But behind this trending act is a volatile chemical called LIQUID NITROGEN and it is not the safest thing in the world. Not only does whipping up that 30second instant ice cream pose a threat to the health of a chef or bartender but also to the consumer. Liquid nitrogen is actually nitrogen gas that is present in the liquid state at an extremely low temperature that is -196•C. Nitrogen is nontoxic in nature but the use of liquid nitrogen for freezing purposes can even lead to death if not handled properly. Liquid nitrogen is cold enough to destroy any living tissue. It causes frostbite to the living tissue. Liquid nitrogen has large expansion ratio as one litre of liquid nitrogen can result in about 700 litres of gas. As a result if liquid nitrogen gets spread in a closed room the levels of oxygen in the room will decrease which will make breathing difficult and can even be lethal. Case studies related to liquid nitrogen suggests that intake of nitrogen leads to complete damage of the tissues in a human being and may even cause holes in the intestines of the person. In few cases such intakes have also resulted in the death of the individual. Liquid nitrogen is inflammable but the fact.

Keywords: Nitrogen, Handling, Prevention, Lethal, Volatile.





THE NATIONAL MEDICAL COMMISSION ACT, 2019: A REFORM IN MEDICAL EDUCATION

Dr. Lalit Chopra¹, Dr. S. K. Dhattrwal²

¹Resident, Department of Forensic Medicine, PGIMS, Rohtak

²Sr. Professor and Head, Department of Forensic Medicine, PGIMS, Rohtak

Abstract

Indian modern medical education is deep-rooted in the strong structures and systems thoughtfully established by the British in the pre-independence era and effortlessly inherited by us. Medical education is at the core of the access to quality healthcare in any country and essential for the wellbeing of the nation. It is against this background that India adopted the Indian Medical Council (IMC) Act 1956. MCI blemished and undermined itself over the years because of its allegedly questionable composition, allegations of corruption and lack of accountability and was finally dissolved and superseded by a Board of Governors. On 8 August 2019, The National Medical Commission Act, 2019 has been notified vide the Gazette Notification and claimed that the legislation represented a visionary reform in medical education. The new Act repeals and replaces the Indian Medical Council (IMC) Act of 1956, under which the Medical Council of India (MCI) was constituted. The Act focuses on providing high quality medical education and adequate availability of medical professionals across the country. It also enforces high ethical standards in all aspects of medical services; is flexible to adapt to changing needs and has an effective grievance redressal mechanism. This poster is regarding the salient features of NMC Act, 2019 and the regime proposed by it.

Keywords: National Medical Commission Act, IMC Act, MCI.





MEDICAL TERMINATION OF PREGNANCY (AMENDMENT) ACT 2021

Dr. Praveen Dixit¹

¹PG Resident, Department of Forensic Medicine, SHKM Govt. Medical College, Nalhar, Nuh – 122107

Abstract

The medical termination of pregnancy act was formed on 10th august 1971. This act legalise the abortion done by registered medical practitioner under certain conditions in government approved institutions. The grounds of abortion are social, therapeutic, eugenic and humanitarian. This act legalises the abortion up to 12 weeks done by single registered medical practitioner and opinion of two doctors is required for the abortion if done between 12 weeks to 20 weeks. For minor girls, consent of guardian is required as per the act. Guardian means a person having the care of the person of a minor or a mentally ill person. In view of extending the time limit to legalise the abortion, new bill was introduced in Lok sabha on 2/3/2020 which was approved in Lok sabha on 17/03/2020. It was further approved by Rajya sabha on 17/03/2021 and presidential approval was given on 25/03/2021, and hence it was named as Medical termination of pregnancy amendment act 2021. It legalizes the abortion up to 20 weeks by a single medical practitioner and the opinion of two doctors is required if the abortion is done from 20 weeks to 24 weeks for the certain category of women. Further, it state that legal abortion can also be done after 24 weeks if the fetus is having substantial fetal abnormalities, but after 24 weeks a board of 4 people (namely a gynecologist, a pediatrician, a radiologist or sinologist and a member selected by state) is required to approve the abortion. It also includes unmarried women asking for legal abortion in case of contraceptive failure. A writ petition with proper mentioning of reason is required if a woman ask for abortion in the gestation age of more than 24 weeks, and do not fit under the above mentioned clauses. Another new amendment in previous MTP act is the maintaining the patient's credentials, disobeying of which may cause fine and imprisonment up to 1 year.

Keywords: Bill, Act, writ petition, guardian, legal abortion.

CHLOROQUINE - A POISON IN DISGUISE

By Shivani Kumari¹

¹Sam Higginbottom University of Agriculture, Technology and Sciences; Prayagraj

Abstract

Chloroquine is used in the treatment of Malaria. Recently it was used in the treatment of COVID 19. In the past 20 years, lethal suicide cases with chloroquine were reported. Homicide cases involving chloroquine were published. It was found that after ingestion of 7.5 g of chloroquine base is followed by cardiac and respiratory arrest. Despite early mechanical ventilation, cardiac support, and treatment with high doses of diazepam, the patient does not survive. These cases submitted indicate a new problem in the field of suicide. A 25 year old woman found dead in the hotel room, a 14 year old girl admitted to the hospital with overdose of chloroquine, a 60-year-old woman with longstanding rheumatoid arthritis receiving prolonged administration of chloroquine were taken into consideration. To check if chloroquine was responsible for heart attacks patients of COVID 19 were also taken into consideration. The 25 year old woman had sent a suicide note to her parents saying she has finally found a way to painless death. The 14 year old girl had high dose of chloroquine when admitted to the hospital could not be saved. It was confirmed that she intentionally ingested the medicine. Post-mortem Tissue analysis demonstrated early drug distribution to the medulla oblongata and cerebellum. The 60-year-old woman developed complete heart block requiring a permanent pacemaker, congestive heart failure, and progressive myopathy. During hospital investigations for her myopathy, she died of acute pulmonary thromboembolism. 127 cases of COVID 19 patients were considered in which about 85% were reported with adverse cardiac events about 30% died of cardiac arrest. Clinicians must be made aware about chloroquine related cardiac manifestations, even have conduction disorders without problems, may be initial complications of toxicity, and are mostly irreversible. The toxicity of this drug in overdose is often underestimated by doctors and patients. Therefore, treatment needs to be stopped when cardiac manifestations are present.

Keywords: Chloroquine, Malaria, COVID 19, thromboembolism, Cardiac arrest.

MEDICAL NEGLIGENCE

Mahender Singh¹, Jitender Kumar Jakhar²

¹Resident, Department of Forensic Medicine, PGIMS, Rohtak

² Professor, Department of Forensic Medicine, PGIMS, Rohtak

Abstract

Medical negligence is defined as failure to execute reasonable skill and due care or willful negligence of a doctor causing any harm, injury, or death of a patient. Broadly, Negligence is divided into two type's a. Civil and b. Criminal. Earlier, doctors were considered next to God but now a days this presumption of people changes to another side. People presume that doctors and hospital are negligent a lot. Cases against doctors and hospitals are increasing day by day in court. Among those cases, some are fake just to damage the reputation of doctors and seeking compromise in monetary terms. So, I am going to present guidelines issued by Honorable Supreme court in view of deciding negligence in this poster.

Keywords: Negligence, Civil, Criminal.





FORENSIC SCIENCE & TOXICOLOGY

Khushi Kajla¹

¹Indira Gandhi Delhi Technical University for Women

Abstract

Forensic Science is the part of forensic medicine dealing with study of dead persons, the toxins & chemicals in their bodies. This is the major field to study/understanding the crimes or suspicious death. The legislation regarding forensic science differs in countries, a common principle is that in the investigation of a possible or suspected criminal death, a forensic pathologist is engaged through a formal request from the police. The task of the forensic pathologist is then to investigate as a medical expert. Several methods and equipments uses in forensic science. This expert role continues throughout the process with their techniques including the court proceedings on request of the court. Data collection: Photographs, Newspapers, Websites, Blogs, Books. Methods: Research & Paper works. Result: Forensic toxicologist should be endowed with adequate training in analytical chemistry, it is impossible to know the true concentration of a xenobiotic in a sample, the case should be interpreted taking into account antemortem or post-mortem toxicological results. More precise equipments need to do forensic research. Conclusion: In this new world, crimes are solved using high tech scientific technologies, very rapidly and with 100 % preciseness. However, there are great differences in the practice of forensic science across various jurisdictions, many due to funding, equipment, and the availability of skilled and well-trained personnel. This exists because many of the operational principles and procedures in the forensic sciences disciplines are not standardized, Although disciplines such as forensic chemistry and toxicology are derived from the Scientific Method approach, they do not require a standardized approach to applying the technology in a manner which would be acceptable in the scientific community which developed and utilizes the technology.

Keywords: Forensic science, Crimes, Storage & preservation, Sample & data collection methods.



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