

The International Conference of Forensic Odontology and Child Abuse (ICFO 2019) organized at King George's Medical University from 31st July to 3rd August 2019. Forensic odontology is that branch of forensic medicine which has established itself as an important and indispensable service in medico legal matters toward the creation of justice and secures society for the future inhabitants. It is a recently budding subject in India which is flourishing in the other countries around globe, this conference included various experts who put forth their ideas on encouraging this subject and its benefit. Another major theme of the conference was Child Abuse, which has seeped in every corner of the world and is globally acknowledged issue which is needed to be eliminated. This conference was gathering of experts of various fraternities from 10 countries across countries who expressed their views, research work and discussed future work on the subject of forensic odontology and child abuse. Apart from the conference 5 pre-conference workshops, scientific sessions and cultural competitions were conducted.

The conference was organized by Forensic Odontology Unit, Department of Oral Pathology & Microbiology, Faculty of Dental Sciences under the guidance of Prof. Dr. Shaleen Chandra and Prof. Dr. Shalini Gupta. They put their heart and soul into the success of this conference. This conference witnessed a large number of registrations from all over India, students as well as faculties of various colleges, forensic laboratories, social workers, lawyers, army person, etc actively participated in the activities and scientific sessions of the conference. 11 international speakers participated in the conference.

Day 1 of the conference was dedicated to 2 pre-conference workshops titled as **DVI Lecture & Perspective of Experiences on Practice Field** and **Pixel-scopic Analysis- A Workshop on Morphometric Analysis in Research**, organized in CP Govilla, New Dental Building KGMU. The inauguration of the workshops was done by (Hon. Vice Chancellor) Prof M.L.B. Bhatt and the Chief guest Maj. Gen. (Dr.) A.K. Nandi (Director Command Hospital) along with Dr. Prashanth Bhagavath (Forensic Advisor, ICRC, SAARC Division) and guest of honor Mr. Sudhir Mishra (Editor in Chief nav Bharat Times) and dr. Shalini Gupta.

The workshop on **DVI Lecture & Perspective of Experiences on Practice Field** was designed in such a manner to benefit the army personal, police and media. Delegates from National Disaster Management Association, State Disaster Management Association, State Disaster Relief Force, Police, Forensic Science Laboratory, International Red Cross Society, Army personal and media representatives were invited and lectures were delivered by Prof (Dr.) Adarsh Kumar (In-charge Forensic Anthropology & Forensic Radiology, AIIMS) Dr. Prashanth Bhagavath (ICRC India), Dr. Emilio Nuzzolese (HOD of Forensic Odontology, Medico-legal Institute of Turin), Major General A.K. Nandi (Director Command Dental Hospital), Mr. Sudhir Mishra (Resident editor of Nav Bharat Times), Dr. Archana Tripathi (Director FSL, Lucknow). The workshop encompassed the role of above fraternities and practical use of forensic odontology in the scaling down child abuse and disaster victim identification (DVI). During the workshop SAARC forensic division advisor Dr. Prashanth Bhagavath described during the event of natural or man-made disaster how the NDRF (National Disaster Management Association) teams co-ordinate to prevent loss of lives and difficulties arising in the forensic investigation and personal identification of the cadaver and methods to overcome such issues. Continuing the lecture, he explained the methods of preventing the disease amongst the people from the decomposing cadaver. He even stressed on the role of Police, SDRF, NDRF and media

to help the general crowd. Dr. Emilio Nuzzoles discussed the techniques used by the doctors for prevention from infection, identification of cadaver, estimation of time of death through post-mortem and new and emerging aspects of forensic science.

Whereas the **Pixel- scopic Analysis- A Workshop on Morphometric Analysis in Research** was conducted by Dr. Satyajit Tekade and Dr. Anmol Gadmail along with Ms. Apoorva Singh who gave Hands on experience during the workshop which focused on the use of morphometric software in forensic odontology including radiographic measurements for age estimation in different stages of dentition using the morphometric software which helps in studies on bitemark analysis and chelioscopy. The workshop was attended by the students, researchers and the faculty members of the dental sciences, pathology, anatomy, and medicine. The workshop covered some aspects of 3-D volumetric measurements of pulp, use of Histomorphometry and Digital Slide Analysis. Other than this it even focused on the oral cancer detection using PET scans using (Eclipse Software) and studying scans in 2D & 3D MATLAB predicting the chances of tumor recurrence. Recent advancements in the field of the digital techniques has increased the role of morphometric analysis in the field of forensic odontology which is laying new foundation for the advance studies in the field of dental sciences and forensic odontology.

Organizing secretary of the ICFO and Professor in the department of Oral Pathology and Microbiology Dr. Shalini Gupta stated that is first of its kind in India where representatives from media, forensic expert, police personals, and students were trained in the field of medicine, child abuse and neglect long with the methods and ways to scale then down. During the event SDRF SSP Niharika Sharma and Shoaib Iqbal, Media cell Shiv Kishor Pandey and Head of Department of Pediatric Dentistry Dr. R.K. Chak were amongst some eminent guests.

Day 2 of the conference was organized in the Kalam Center situate in the campus of King George's Medical College. Three workshops were conducted simultaneously for which students as well the faculty participated actively.

Workshop on DVI Procedures with Interpol Guide with Hands On, 3D SCANING AND PRINTING and Child Protection Workshop for Health Professionals were organized on second day of the conference.

Workshop on DVI Procedures with Interpol Guide with Hands On conducted by Dr. Evi Untoro (INTERPOL, Indonesia), Dr. Emilio Nuzzoles, Dr. Adarsh Kumar, Dr. Ranjeet Singh. This workshop covered the INTERPOL guidelines for disaster victim identification. This Guide has been endorsed by the INTERPOL DVI Standing Committee and INTERPOL DVI Working Group, for use by INTERPOL Member Countries in the identification of disaster victims. It can also be used to assist in establishing DVI Teams and in the management of DVI operations by those countries that either do not currently have a DVI capacity, or have never been confronted with such operational situations, should be of use to personnel from both law enforcement and forensic backgrounds. It should also be of use to national and local authorities, as well as to organizations that have responsibility for emergency contingency planning.

The DVI process is an internationally recognized sequence of activities that has been developed over several years. It has been tested in large scale disasters in many regions across the world and has proven to be a reliable method by which victim data in the form of post-mortem material can be matched against missing person data. The aim of this matching process is to positively identify human remains. It is also essential to respond to relatives' needs with compassion, respect, and honesty, to provide answers and certainty as soon as reasonably possible. The application of open communication, respect and honesty are all hallmarks of the principles that should underpin DVI operations and these principles are supported and strongly promoted by INTERPOL.

The workshop included lecture on disaster scene, introduction on INTERPOL forms by Dr. Emilio Nuzzoles) followed by lecture on AM - PM data collection, repatriation system by Dr. Evi Untoro. Then hands-on fingerprinting by Dr. Ranjeet Singh and lecture by Prof. Dr. Adarsh Kumar on Forensic Anthropology with Hands-On for identification of bones of unidentified person. Then Dr. Emilio Nuzzoles delivered lecture Forensic Odontology and DVI with hands-on on Dental Autopsy. Followed by embalming hands-on and lecture on Forensic Pathology & Forensic Genetic/ DNA, Autopsy Simulation Video/ Pictures by Dr. Evi Untoro

The next workshop was conducted by Dr. Suresh Ludhwani on **3D SCANING AND PRINTING** in this workshop Dr. Suresh Ludhwani demonstrated the future perspective of this innovative technology and its forensic relevance. He even demonstrated the printing and scanning techniques using multiple software and method of digital archiving of trace evidence by the ability to create its precise replications using 3D printing. Dr. Ludhwani even demonstrated the process of 3D printing.

Workshop topic **Child Protection Workshop for Health Professionals** was conducted by Dr. Hani Jahshan. The goal of this workshop was to establish sensitize the health professionals to the importance of keeping violence against children in mind during clinical practice. The objective of the workshop was to make the attendees understand following

- I. comprehend the concepts of incidence and prevalence of violence against children.
- II. understand the demographics of violence against children.
- III. to get acquainted with the legal and ethical issues related to child protection.
- IV. to identify traditional medical tools of history, physical examination, laboratory, imaging, and consultation as the primary tools for diagnosing violence against children.
- V. apprehend the short and long-term outcomes of violence against children.
- VI. enabling them to respond to identified cases of violence against children including their role in the national multi-sectorial child protection system.

Day 3 and 4 were reserved for the scientific sessions. The scientific sessions along with cultural events was participated by huge number of participants. The competitions included poster and oral presentation, Rangoli, documentary, soap carving and e-poster presentations. With active participation and enthusiasm of the faculty as well as students makes it a colossal success.

The inaugural ceremony for the conference was grand with Minister of Law and Justice and Additional Energy Resources and Politicians Pension in Uttar Pradesh Government Mr. Brajesh Pathak as chief guest of the conference and session started with lightening of lamp and then scientific session started. He put forth his views on the child abuse and his deep regrets towards such cases. He further added that the government of Uttar Pradesh is not lenient towards such cases and is heading with strong heads to deliver justice and determined to promote and conducting such events. He even

congratulated Prof. M.L.B. Bhatt vice chancellor medical college, Dr. Shalini Gupta and her team on organizing this conference and asked to conduct similar conference in future for it helps the society.

Later Prof. M.L.B. Bhatt vice chancellor (KGMU) appreciated that the government of Uttar Pradesh for establishing the forensic odontology unit in King George's Medical University for it is tremendously growing across globe. He announced that forensic odontology unit is going to launch an app soon to educate children and their guardians about child abuse. He expressed his views on the topic of child abuse and said that it is shameful and unfortunate for a kid is deprived of his innocence and imparts negative effect on him throughout his life. He further added that in last 10-15 years child abuse cases reported have crossed all past records. Lastly concluded by wishing the government for their efforts to bring justice to such kids and maintaining strong heads towards such cases for in past these cases were not even reported.

Later in the ceremony Mr. Brajesh Pathak (Minister of Law and Justice and Additional Energy Resources and Politicians Pension in Uttar Pradesh) Prof. M.L.B. Bhatt (Vice Chancellor, King George's Medical University), Prof. Shadab Mohammad (Dean, Dean Sciences) and Dr. Shalini Gupta (Organizing secretary) released the souvenir. This was followed by IAOMP (Indian Association of Oral and Maxillofacial Pathologists) oral cancer awareness torch rally. Students preceded by faculty moved with placard with slogans and collages to spread awareness regarding the cause, repercussion and cure of oral cancer.

While the scientific sessions included both national as well as international speakers who were experts from various fraternities delivered lecture on scaling down the cases of child abuse and cases of forensic odontology. The majority of delegates were Dental and Law students but many dentists, forensic odontologists, scientist, anthropologist, paediatrician, psychologist and few people from judiciary, bureaucrats, politicians, police, military personals and state disaster management authorities' personals also attended the conference. Therefore, the outcome of this conference was fruitful for the people of various fraternity. The scientific sessions included experts from different arenas delivered their views and opinions on the theme of the conference, the interactive audience uplifted these sessions.

The final schedule is attached as table 1 which includes the list of speakers and their topic of talk.

The last ceremony of the last day was the valedictory ceremony where all the speakers and winners of all the cultural and scientific competitions were awarded by the esteemed faculty. Ending the 4-day conference with great energy and a reality check about the society and where the future of this country is heading.

The conference provided an overview into the importance of forensic odontology with emphasis on latest trends in the field such as science in medico-legal matters (age sex determination), in the identification of the dead person, Disaster victim identification, Bite mark, child abuse, image analysis and forensic photography etc. The final outcome of the conference was that we need to revise the laws against the child abuse and it should be redefined with modern definition including cyber bullying. Whereas India still needs to establish strict laws along with classes to help the children

suffering from child abuse. While in the context of forensic odontology it was established that India still needs to work in this field to reach the world standards. With great scope of development India still lags research in this field, to tackle this, modes of improvement and ways to engage more people towards improvement in this field was discussed in the conference. The International Conference of Forensic Odontology & Child Abuse - 2019 brought together participants from a wide range of disciplines, to meet, learn of the latest advances and trends in the field of forensic odontology along with the burning topic of child abuse, and exchanged ideas.

PROGRAM SCHEDULE

31ST JULY:

TIME	SCHEDULE	SPEAKER	TITLE OF TALK
08:30-09:30	REGISTRATION & BREAKFAST		
DVI LECTURE and Perspective of Experience in Practice Field (Conducted by: Dr. Evi Untoro, Dr. Emilio Nuzzoles, Dr. Prashanth Bhagavath, Mr. Sudhir Mishra, Dr. Adarsh Kumar, Dr. Ranjeet Singh Venue: New Dental Building, 3rd Floor, CP Govila Hall)			
09:30-10:30	Identification on Forensic Anthropology and Identification on Forensic Pathology + DNA + Respiration system (Prof Dr. Adarsh Kumar)		
10:30-11:00	Lecture by representative ICRC India (Humanitarian forensic action in emergencies and disaster) (Dr. Prashanth Bhagavath)		
11:00-11-15	Coffee Break		
11:15-11:45	Identification on Forensic Odontology & Importance of Dental Autopsy (Dr. Emilio Nuzzolese)		
11:45-12:00	Conflict Victim Identification: Dental Photographic Method (Major General A.K. Nandi)		
12:00-12:15	Lecture by Mr. Sudhir Mishra (chief editor of Nav Bharat Times)		
12:15-12:30	Role of forensic scientist in DVI (INDIA) (Dr. Archana Tripathi Director FSL)		
12:30–13:30	Inaugural Ceremony		
13:30-14:30	Lunch		
14:30-14:45	Identification on Fingerprint at Scene/ Mortuary Room (Dr. Ranjeet Singh)		
14.45-15:00	Discussions Closing		
PIXEL-SCOPIC ANALYSIS-WORKSHOP ON MORPHOMETRIC ANALYSIS IN RESEARCH (Conducted by: Dr. Satyajit Tekade, Dr. Amol Gadbaal, Apoorva Singh Venue: Pedodontics Seminar room new dental building 4th floor)			
09:00 to 10:00	BREAKFAST and REGISTRATION		
	Tumor texture analysis of pre-treatment PET scans		

10.00 to 10.30	Apoorva Singh:
10.30 to 11.15	Introduction to morphometry in dentistry Dr Amol Gadbail
11.15 to 12.30	Standardization of microscope and software Dr. Satyajit Tekade
12.30 to 01.30	Inaugural Ceremony (CP Govilla) Hands on workshop on participant laptops with Image J software and resolving their queries Dr Satyajit Tekade & Dr Amol Gadbail
01.30 to 3.00	Writing efficient & Quality Scientific papers Dr Amol Gadbail
3.00 to 3.30	

WORKSHOP ON DENTAL SKILLS IN DVI (Conducted by: Dr. Selina Leow Venue: Saraswati Dental College) (08 am to 5 pm)

09:30-10:00	LECTURE 1 ST	DR. JOHN BERKETA	Maximizing Postmortem Information of Severely Incinerated Victims
10:00-10:30	LECTURE 2 ND	DR. SELINA LEOW	Use and Type of Disaster Management Victim in Australia
10:30-11:00	LECTURE 3 RD	DR. B.S. MANJUNATH	Diagnosing Child Abuse: Dental and Intra-Oral Injuries

1ST AUGUST :

WORKSHOP ON DVI Procedures with INTERPOL Guide with Hands On (Conducted by: Dr. Evi Untoro, Dr. Emilio Nuzzoles, Dr. Adarsh Kumar, Dr. Ranjeet Singh Venue: Kalam Center)	
08.00 - 08.30	Registration & BREAKFAST
08.30 - 09.00	Opening Speech (Dean of KGMU, Chairman of ICFO, Chairman on DVI Workshop)
09.00 - 09.30	Lecture on Disaster Scene, Introduction on INTERPOL Forms (Dr. Emilio Nuzzolese)
09.30 - 10.00	Lecture on AM - PM Data Collection, Repatriation System (Dr. Evi Untoro)
10.00 - 11.00	Finger Printing with Hands-On (Dr. Ranjeet Singh)
11.00 - 11.15	Coffee Break
11.15 - 12.45	Forensic Anthropology with Hands-On (Prof. Adarsh Kumar)
12.45 - 13.15	Discussions
13.15 - 14.15	Lunch
14.15 - 15.45	Lecture on Forensic Odontology and DVI (Dr. Emilio Nuzzolese)
15.45 - 16.15	Dental DVI Team and Dental Autopsy Hands-On (Dr. Emilio Nuzzolese)
16.15 - 16.30	Discussions
16.30 - 16.45	Coffee Break
16.45 - 18.15	Forensic Pathology& Forensic Genetic/ DNA, Autopsy Simulation Video/ Pictures, Embalming Hands-On (Dr. Evi Untoro)
18.15 - 18.30	Discussions
18.30 - 18.35	Closing
09:00-05:00	WORKSHOP ON 3D SCANING AND PRINTING (Conducted by: Dr. Suresh Ludhwani Venue: Kalam Center)

CHILD PROTECTION WORKSHOP FOR HEALTH PROFESSIONALS (Conducted by: Dr. Hani Jahshan Venue: Kalam Center)

Activity:	Objective:	Minutes
Introduction and pre-exam		08.50-09.00
Short Scenarios about what constitutes violence against children.	To be familiarized with the problem of violence against children.	09.00-09.30
Group discussions on definitions and classifications of violence against children. Presentation on definitions and classifications of violence against children	To be acquainted with UN definitions and classifications of violence against children.	09.30-10.00
Review images of patterned injuries.	Understand the concept of the “Child Abuse Syndrome”	10.00-10.20
Presentation; violence against children constitute a public health and a clinical issue.	Understand specific forms of violence against children, shaken baby syndrome, Münchausen syndrome by proxy, sexual violence, neglect, conditions that may mimic violence against children.	10.20-11.20
Coffee Break		11.20-11.50
<p>Presentation on the WHO ecological model about roots of violence against children.</p> <p>Adel and Abeer family case study follow by group discussion.</p> <p>Global Aspect of Violence against Children</p>	<p>Use the ecological model to understand the roots of violence against children. Recognize the difficulty of identifying abused children presenting within a busy pediatric acute care facility</p> <p>Use the epidemiology of violence against children to generate heightened clinical suspicion.</p>	<p>11.50-12.35</p> <p>12.35-13.20</p> <p>13.20-13.50</p>

Lunch break		13.50-14.50
Presentation on diagnosis of violence against children a building block approach Indicators of Child Abuse	Apply the violence recognition tools to clinical practice. Recognize the red flags of violence against children	14.50-15.35
Presentation about flow-chart of cases of violence against children.	Assure a preventive and therapeutic response to the occurrence of violence against children.	15.35-16.00
Presentation about an example of multi- disciplinary response to violence against children.	Get acquainted with legal and ethical issues related to response and reporting	16.00-16.10
Any Hope? Case studies of Success stories.		16.10-16.20
Concluding session post-exam and evaluation		16.20-16.50

2ND AUGUST(8am-5:30pm): Hall

TIME	SCHEDULE	SPEAKER	TITLE OF TALK
08:00-09:00	REGISTRATION & BREAKFAST		
CHAIRING			
09:00-09:20	GUEST LECTURE	Dr. Belayet Hossain Khan	The Future Reflection of Nation Child Have Some Common Problem Like Under
09:20-09:40	GUEST LECTURE	Dr. P.V.K.S Hettiarachchi	ROLE OF DENTAL IMAGING IN FORENSIC ODONTOLOGY
09:40-10:10	KEYNOTE	Prof. Adarsh Kumar	Medico-Legal Aspects of Child Abuses
10:10-10:40	KEYNOTE	Dr. Emilio Nuzzolese	Forensic Odontology- A Human Right Perspective
10:40-11:10	TEA BREAK		
CHAIRING			
11:10-11:40	KEYNOTE	Dr. John Berketa	Bitemark Cases
11:40-12:10	KEYNOTE	Dr. Hani Jahshan	Abusive Head Trauma in Infants and Children
12:10-12:30	GUEST LECTURE	Dr. Selina Leow	The Use of CT Image for Identification
12:30-01:30	INAUGURATION		
01:30-02:30 LUNCH			
CHAIRING			
02:30-02:50	GUEST LECTURE	Dr. Ramanuja Parthasarthy	Crisis in Forensic Science
02:50-03:10	GUEST LECTURE	Dr. Mala Kamboj	Child Abuse and Neglect- It's Time to Face Up To
03:10-03:30	GUEST LECTURE	Dr. Deepika Kapoor	Unite for An Insight: An Overview on Medical Neglect of Children in Developing Countries.
CHAIRING			
03:30-03:50	GUEST LECTURE	Dr. Navpreet Kaur Rubal	Protection of Children from Abuse and Neglect in India
03:50-04:10	GUEST LECTURE	Dr. S.K Shukla	Reporting of Results by Competent Laboratories
04:10-04:30	GUEST LECTURE	Dr. Amit Chauhan	Exploitation of Children, Adolescents and Cyber-Space
CHAIRING			
04:30-04:50	GUEST LECTURE	Dr. Om Prakash Gupta	DNA fingerprinting
04:50-05:10	GUEST LECTURE	Dr. Archika Gupta	Overview of Child Abuse and Sexual Assault- Strategy of Prevention
ORAL PRESENTATION/UG/PG/Faculty HALL-B			

3rd AUGUST(8am-7pm): HALL A

TIME	SCHEDULE	SPEAKER	TITLE OF TALK
08:00-09:00	BREAKFAST		
CHAIRING			
09:00-09:20	GUEST LECTURE	Dr Mohammed Nasimul Islam	Digital Autopsy: A Tool for Investigation of Suspected Child Abuse
09:20-09:40	GUEST LECTURE	Dr. Archana Tripathi	POSCO Act and Forensic DNA Analysis
09:40-10:00	GUEST LECTURE	Dr. BS Manjunath	
10:00-10:30	TEA BREAK		
CHAIRING			
10:30-11:00	KEYNOTE	Dr. Evi Untoro	Identification of Missing Person Using Fingerprint System in Indonesian DVI Practice
11:00-11:30	KEYNOTE	Dr. Ruwan D Jayasinghe	Dental Age Estimation Using Radiographs: Towards the Best Method
11:30:11:50	GUEST LECTURE	Dr. Selina Leow	The Use of Plass Data Software & Its Integration with FDI Notation & Interpol.
CHAIRING			
11:50-12:10	GUEST LECTURE	Dr. Rakesh Gorea	Medico-legal Aspects of Child Abuse and Neglect
12:10-12:30	GUEST LECTURE	Dr. M. K. Sunil	Whiz kids Of Today: How Safe They Are?
12:30-12:50	GUEST LECTURE	Dr. S.N Kureel	Classification and Management of Perineal Injuries in Childhood Sexual Assault
12:50-01:10	GUEST LECTURE	Dr. Hemant Nagar	
01:10-02:10 LUNCH			
CHAIRING			
02:10-02:30	PROMOTIONAL TALK	Dr. Selina Leow	Australian Society of Forensic Odontology Symposium
02:30-02:40	GUEST LECTURE	Dr. N. Sridhar	Child Abuse and Neglect: The Pediatric Dentist's Perspective
CHAIRING			
02:40-03:00	GUEST LECTURE	Dr. Madhusudan Astekar	Digital Palmar Dermatoglyphics In Forensics
03:00-03:20	GUEST LECTURE	Dr. Shalini Gupta	Reconstructive Dental Identification
03:20 onwards	VALEDICTORY SESSION AND AWARD DISTRIBUTION		