



**Fiatal Igazságügyi
Orvosszakértők Fóruma
Szeged
2016. május 26-27-28.**

**SZEGEDI TUDOMÁNYEGYETEM
ÁLTALÁNOS ORVOSTUDOMÁNYI
KAR
IGAZSÁGÜGYI ORVOSTANI INTÉZET**

**Fiatal Igazságügyi Orvostudományi Fóruma
(FIOF)**

Szeged

2016. május 26-27-28.

Absztrakt könyv

SZERVEZŐBIZOTTSÁG

Dr. Mai Tímea

Dr. Szabó Helga

Dr. Sija Éva

Dr. Szécsi András

Dr. Pintér Katalin Marietta

ELŐADÁSOK HELYSZÍNE

Az Eko Park Szeged konferenciaterme

TÁMOGATÓINK

MIOT

Medicina Kiadó

Roche (Magyarország) Kft.

Szegedi Igazságügyi Orvosszakértői Kamara

KÖSZÖNTŐ

Kedves Kollégák és Barátaink!

Nagy örömünkre szolgál, hogy a 2016-os évben a Fialal Igazságügyi Orvosok Fóruma (FIOF) Szegeden kerül megrendezésre május 26-28.-án.

A jó társaság garantált, reményeink szerint a programok tartalmasak és emlékezetesek lesznek. Kívánjuk, hogy gyarapodjon a tudásotok és érezzétek jól magatokat!

A szervezők

WELCOME MESSAGE

Dear Colleagues and Friends,

It is our great pleasure to host the Meeting of Young Forensic Pathologist (FIOF 2016) in Szeged, 26th-28th, May, 2016.

The good company is guaranteed, the program will hopefully be exciting and interesting. We wish you to broaden your knowledge and have a wonderful time.

The Organizing Committee

PROGRAM

2016. május 26.

Csütörtök - Thursday

Regisztráció - Registration

Ebéd - Lunch

Megnyitó – Opening ceremony

I. szekció (magyar nyelvű)

Üléselnök/Chairman: Dr. Kereszty Éva - Dr. Kozma Mihály

Éva Kereszty: The new Act on legal experts

Ernő Fejes: Assemblage of the expert opinion

András Szécsi: Tendencies of medical investigation in death cases
occurring outside of hospital in Szeged and the region

Gábor Simon: Effects of diseases with structural liver changes on blunt-
force liver injuries

Marietta Katalin Pintér: Fatal stabbed and incised injuries

II. szekció (magyar nyelvű)

Üléselnök/Chairman: Dr. Tóth Zsuzsanna - Dr. Csányi Bernadett

Imre Szabó: Jogakadémia

Éva Sija: The forensic importance of metabolites

Viktor Soma Poór: In vino Cocto Veritas?

Dénes Pauka: Fatal accidental carbon-monoxide intoxication following overdose of multiple stimulants

Bernadett Csányi: Archaeogenetic analysis of the Hungarian conquest period cemetery Karos-Eperjesszög III.

Zsuzsanna Huszta: The importance of medical imagery in the forensic medical practice

Bográcsos vacsora, Meglepetés program – Dinner, Surprise program

2016. május 27.

Péntek - Friday

III. szekció (angol nyelvű, English speaking)

Üléselnök/Chairman:: Prof. Dr. Varga Tibor - Dr. Weiczner Roland

Hangau B. : Hydatid cyst as an autopsy surprise. Case presentation and literature data

Radnić B. : Case report of unusual head gunshot entrance wounds- An exception of rules

Cvetković D. : Giant aneurysm of basilar system ascidental autopsy finding

Durmić T. : Iatrogenic tracheoarterial fistula: Case report and review of literature

Manar Buni: Examination of Death Penalty around World

IV. szekció (angol nyelvű, English speaking)

Üléselnök/Chairman:: Dr. Kozma Zsolt - Dr. Havasi Beáta

Tamás Krompecher: The challenge of identification following the tragedy of the Solar Temple (Cheiry/Salvan, Switzerland)

Tímea Mai: Radiological findings versus mechanism of injury– A case report

V. szekció (magyar nyelvű)

Üléselnök /Chairman:: Dr. Gergely Péter - Dr. Szabó Árpád

Tibor Varga: The functioning of the Body of Forensic Experts of the Scientific Health Committee and the experiences of the recent years

Kálmán Rácz: Heat haematoma

Roland Weiczner: Quest for the holy grail of forensics:
immunohistochemical age estimation of injuries

Dénes Tóth: The role of forensic histopathology in routine practice

Tibor Varga: Human trafficking – Migrant victims

VI. szekció (magyar nyelvű)

Üléselnök/Chairman: Prof. Dr. Krompecher Tamás - Dr. Szabados György

Csaba Nagy: The involvement of experts in criminal proceedings

Árpád Szabó: Gunshot wound “identification” (completing the
inappropriate medical records)

András Slezák: An aggressive man’s death shortly after police
intervention

Helga Szabó: I am poisonous for you!

J. Bokor: The role of extended pathological examination in suspected
sudden infant death (SIDS) cases

Péter Gergely: Constats – or what can we do with medical documents?

Roche (Magyarország) Kft.: Roche Diagnostic solutions in Forensic
laboratories

Medicina Könyvkiadó: Könyvbemutató: Gyermekbántalmazás (szerk.:
Törő Klára-Nagy Anikó)

Grill vacsora - Dinner

2016. május 28.

Szombat – Saturday

VII. szekció (magyar nyelvű)

Üléselnök/Chairman: Dr. Törő Klára - Dr. Molnár Attila

Gábor Kereszty: Injuries caused by bites by dogs and cats from the aspect of the veterinary

Antal Kricskovics: Differential diagnostic problems concerning a person, deceased in penitentiary institute: Case report

Barbara Kasza: Injuries of orofacial region in childhood

Nóra Heltai: Forensic analysis of injuries in dentistry

Csilla Dézsi: A prospective observational study of rugoscopy: A reliable, cheap and accurate method for forensic identification

Károly Szili: Law and ethical aspects of different obstetrics and biochemical methods during the pregnancy

Díjak átadása - Prize giving ceremony

Zárás – Closing ceremony

ABSTRACTS

SESSION I.

THE NEW ACT ON LEGAL EXPERTS

Éva M Kereszty MD, PhD

Department of Forensic Medicine, University of Szeged

The Act on legal experts, that came into effect 10 years ago, is relayed by the Act No. 29 of 2016, i.e. the new Act on legal experts, from 15th June, 2016. A new point in the new Act is that the rules on the functioning of the chamber and the Act on the chamber of legal experts are incorporated into one uniform Act. As supposed before, the chamber becomes a uniform, national organisation and leaves behind the regional structure. Its new task is the qualification of the legal experts. The rules on the new organisation will come into effect on 15th September, 2016; the rules on the new tasks will come into effect on 1st January, 2017.

As for the activity of legal experts, the new Act introduces quite a few ethico-legal responsibilities and sanctionable omissions. It also introduces the institution of electronic data transfer between legal expert and ordering justice/authority. It also makes the requirements of the register of legal experts more exact. As for the fee of the legal experts, the right to interest becomes clear and it also introduces a new chamber fee, which is to be requested by the legal expert in each and every case.

The organisation of the legal experts remain unchanged. There is no exact regulation on organisational level, on the level of competence and on the assessment of fees, which would make the allocation of cases and the professional reorganisation calculable.

TENDENCIES OF MEDICAL INVESTIGATION IN DEATH CASES OCCURING OUTSIDE OF HOSPITAL IN SZEGED AND THE REGION

Dr. Szécsi András

ISZKI BKMI, Kecskemét Trombita u. 2.

In Hungary, about 30% of the deaths occur outside of the hospital: at home or in public places, and 80% of these death cases there is no autopsy needed. In the region of Szeged, the autopsies of those who deceased at home or in public places are carried out by the staff of Department of Forensic Medicine regardless of the fact, that the death is considered to be natural or extraordinary according to the death-investigator doctor.

Our Institute – as opposed to the only regular-autopsy-established pathology departments – has proper forensic background, which allows to the doctor performing the autopsy to do additional tests if any extraordinary fact is detected and after report the case to the police. The fact, - that there have been ordained as regular autopsy. but later reported as third persons suspected cases,- highlights the responsibility of the doctor who performs the investigation of the deceased and the major importance of autopsy of those who died outside of the hospital.

In my presentation I will briefly review the rules of death-investigation, the extraordinary or extraordinary-suspected death cases, which have been reported to the police in the recent years in the sub-region of Szeged and with examples taken out of the context I am trying to convey the role of the law®ulations in specific situations and the special place of forensic medicine in autopsy.

Keywords: *death investigation, medico-legal autopsy*

EFFECTS OF DISEASES WITH STRUCTURAL LIVER CHANGES ON BLUNT-FORCE LIVER INJURIES

**Gábor Simon^a, Dénes Tóth^a, Viktor Soma Poór^{a,b} Prof. F.
Tamás Molnár^b**

^a*Department of Forensic Medicine, Medical Faculty of Pécs University,
Pécs, Hungary*

^b*Department of Operational Medicine, Medical Humanities, Medical
Faculty of Pécs University, Pécs, Hungary*

The effect of different liver diseases on vulnerability of the liver tissue to blunt force injuries are often questioned and debated in forensic situations. We present the preliminary results of an examination of liver samples from autopsies: vulnerability to quasi-static blunt-force of 75 liver samples were examined with a tool uniquely designed for this research. The results show slight decrease of average vulnerability values in steatosis and large decrease of average vulnerability values in cirrhosis. Significant decrease in vulnerability (increased resistance to blunt-force) was proven in case of cirrhosis and infiltrative liver diseases.

Keywords: *forensic pathology, blunt-force, liver injury*

FATAL STABBED AND INCISED INJURIES

Marietta Katalin Pintér^a, Kereszty Éva^b

^{a-b}Department of Forensic Medicine, University of Szeged

Bodily injuries are often caused by sharp or pointed instruments in Hungary. This is probably because weapon possession and weapon use are under rigorous legal regulation while sharp and pointed instruments could be found in every household. In 2012 129 cases of homicide were committed, stabbed or incised injuries caused the death of the victim in 52 of these cases.

I reviewed autopsies performed in Csongrád county between 2003 and 2013, regarding cases, when stabbed, incised or stabbed-incised injuries led to death.

I compared my results with nationwide data and data from other European countries with a similar number of population, regarding both self-inflicted and violent stabbed and incised injuries.

Keywords: *stabbed injuries, incised injuries*

SESSION II.

THE FORENSIC IMPORTANCE OF METABOLITES

Éva Sija

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Kossuth L. sgt. 40 (Hungary)*

After consumption, most of drugs and narcotics are excreted with urine in an unchanged form. In many cases, the period of detection may be enlarged by measuring metabolites. E.g., the half-life time of benzoylecgonine, which is one of the main metabolites of cocaine, is markedly longer than the half-life time of the mother molecule. Therefore, it is traceable even days after consumption. The quantitative determination makes it possible – supposing an average dose – to closely determine the time-point of consumption. From this aspect, the measuring of benzodiazepines, might be misleading. 7-amino-clonazepam (metabolite of clonazepam), which shows sawtooth-like elimination curve is a good example.

Measuring of metabolites conjugated with glucuronic acid is generally accomplished after hydrolysis in free form (e.g. opiates, THC-OH or THC-COOH). In case of synthetic cannabinoids, the mother molecule, as well as the metabolite, frequently conjugate with glucuronic acid, thus, these are normally detected after glucuronidase enzyme cleavage or after alkaline hydrolysis.

Since these derivatives are present in humors in low concentration and they metabolise quickly, the verification of narcotic consumption can be really effective, when the presence of metabolites is verified.

IN VINO COCTO VERITAS?

Viktor Soma Poór^a, Mátyás Mayer^b

*^{a-b}University of Pécs, Faculty of Medicine, Department of Forensic
Medicine
Pécs, Szigeti u. 12, Hungary*

Mulled wine is the favourite hot alcoholic drink of the winter season. By definition mulled wine is a hot, wine based drink with added water, sugar and spices.

Several factors can affect the alcohol content of these drinks (e.g. the amount of added water). In our study, we wanted to compare the alcohol content of mulled wines from various sources.

Ethyl-alcohol concentrations were determined by gas chromatography. The average alcohol concentration (V/V%) was 6.56% (median: 7.75%), but the alcohol content of the samples varied wildly (minimum: 0.31%, maximum: 9.75%, standard deviation: 3.06%).

In further experiments we have shown that contrary to the popular belief, alcohol content of mulled wines do not change significantly during preparation.

Keywords: ethyl alcohol, gas chromatography

FATAL ACCIDENTAL CARBON-MONOXIDE INTOXICATION FOLLOWING OVERDOSE OF MULTIPLE STIMULANTS

Dr. Pauka Dénes^a, Dr. Tóth Dénes^a, Dr. Simon Gábor^a

*^aPécsi Tudományegyetem Általános Orvostudományi Kar
Igazságügyi Orvostani Intézet
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Bodies of two young males sitting in a car were found in the morning hours in a garage. Multiple injection marks were detected during the post-mortem examination. The police investigators found syringes, several cigarettes, blue residual material, green plant debris, and white-green crystal-like material in the car. The toxicological examination proved that carbon monoxide poisoning (80 % in both victims) was the direct cause of death, and also proved pentedrone (3767 ng/ml and 3413 ng/ml b.c.), MDMA (2173 ng/ml and 504 ng/ml b.c.), and amphetamine (1788 ng/ml and 979 ng/ml b.c.) overdose.

Keywords: forensic sciences, autopsy, carbon-monoxide, pentedrone, amphetamine, MDMA

ARCHAEOGENETIC ANALYSIS OF THE HUNGARIAN CONQUEST PERIOD CEMETERY KAROS-EPERJESSZÖG III.

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^a*Department of Forensic Medicine, University of Szeged, Kossuth L. sgt.*

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In this study 19 skeletons /11 men, 5 women and 3 children/, derived from a well-documented 10th century cemetery at Karos – Eperjesszög III, were included. Burial site and bones were archeologically and anthropomorphically well defined before analysis. Based on serogenetic examination /ABO blood type determination/ Imre Lengyel established the probable kinship relations between the specimens. To clarify the genetic relationships between individuals DNA was extracted from tooth and bone samples of the ancient remains. The maternal lineages based on mitochondrial DNA polymorphisms, the paternal Y-chromosomal lineages, as well as autosomal short tandem repeats were analysed. The genetic data contradict most of the paleoserology results.

Keywords: *archaeogenetic, mitochondrial DNA, Y-chromosomal DNA, short tandem repeats*

THE IMPORTANCE OF MEDICAL IMAGERY IN THE FORENSIC MEDICAL PRACTICE

Zsuzsanna Huszta

Department of Forensic Medicine, University of Szeged

Introduction: In the last 100 years, radiology obtained an increasing field in forensic medicine. Thanks to this, the time-point of fractures became easier to diagnose; traditional dissections are helped by virtual dissections. These instruments are of high importance before court (violence, indemnity, etc.).

Method: I used 14287 expert's opinions issued by the Institute of Forensic Medicine of Szeged between 2008-2012. I focused on radiological constats.

Results: Out of 387 cases, I chose those ones in which a specialty consultant was involved. Out of the remaining 66 cases, I chose those ones in which the diagnosis was changed after reconstat: 13 cases occurred.

Discussion: The radiological imagery conveys objective data on the clinical state, which are univoque for everyone. A certain difference between clinical diagnosis and forensic medical diagnosis is demonstrated by the fact that reconstat was ordered in 17,1 % of the cases.

SESSION III

HYDATID CYST AS AN AUTOPSY SURPRISE. CASE PRESENTATION AND LITERATURE DATA.

Hanganu B, Velnic A, Ioan B

*Forensic Medicine, “Grigore T. Popa” University of Medicine and
Pharmacy, Iasi, Romania*

Hydatid cyst is a zoonotic parasitic disease which reemerged in the last years in Romania, with an increasing incidence of 5-6 cases per 100000 inhabitants and mortality by complications around 2%. In this paper the authors present a case of in-hospital death of a young male suffering of hydatid cyst. The death occurred as a consequence of septic shock after breaking the infected vesicles. The patient was hospitalized for 4 days, without any suspicion of hydatid cyst in this time despite the imagistic and laboratory analyses. The autopsy revealed numerous infected vesicles in pleural cavity and liver, the latter being the primary site of the cyst. The case is presented in the view of literature data, referring to the diagnosis difficulties, differential diagnosis and complications that may result in the patient's death.

Keywords: *hydatid cyst, death, clinical diagnosis, autopsy*

CASE REPORTS OF UNUSUAL HEAD GUNSHOT ENTRANCE WOUNDS – AN EXCEPTION OF RULES

**Radnić B^a, Čurović I^b, Damjanjuk I^a, Radojević N^b,
Mihailović Z^a**

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^b *Department of Pathology and Forensic Medicine, Clinical Centre of
Montenegro; Faculty of Medicine, University of Montenegro,
Podgorica, Montenegro*

External beveling of an entrance gunshot wound to the skull is a known, but rare entity. We present two cases of a combined external and internal beveling of cranial entries. In the first case, a 35-year-old woman had two entrance wounds in the right half of the forehead, made by a 10.2mm caliber bullet. Second case presents a 48-year-old man with an entry wound in the middle of the occiput, made by a 7.62mm caliber bullet. All the entry wounds on the skin had stellate appearance. The corresponding wounds to the skull were of roughly round shape. Both the inner and the outer plates of the bone were beveled for 2-4mm. Bony edges of all entrance wounds were covered in soot, as a definite sign of an entry. In this case study, we underline the importance of recognizing this phenomenon in order to avoid misinterpretation of entry vs. exit wounds.

Key words: *entrance wound, contact wound, external beveling, gunshot, skull*

GIANT ANEURYSM OF BASILAR SYSTEM AS INCIDENTAL AUTOPSY FINDING

Cvetković D^a, Nikolić S^a, Damjanjuk I^a, Živković V^a

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School of Medicine, University of Belgrade, Serbia*

We presented two cases of giant intracranial aneurysm of basilar artery. Such aneurysms could cause symptoms of vertebrobasilar insufficiency or rupture. In the first case, a saccular aneurysm (35x25x15mm) of the basilar artery was found. Up to 8mm thick organized mural thrombus was found on the left part of aneurism. Additionally, left vertebral artery was enlarged in form of a fusiform aneurysm (8mm in diameter, 40mm in length), encompassing the confluence with the right vertebral artery. Both aneurysms compressed right side of the pons, making an impression on its ventral surface. In the second case, a dolichoectatic atherosclerotic fusiform aneurysm, measuring 40mm in length up to 20mm in diameter, replaced the entire basilar artery, encompassing the left vertebral artery for another 50mm. In both cases, the right vertebral artery was thin and without significant pathological changes. In both cases, aneurysms were an incidental finding, unrelated to the cause of death.

Keywords: *autopsy, giant aneurysm, basilar artery, saccular, fusiform*

IATROGENIC TRACHEOARTERIAL FISTULA: CASE REPORT AND REVIEW OF LITERATURE

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Podgorica, Montenegro*

Tracheo-innominate fistula is rare, but recognized life-threatening complication most commonly associated with prolonged endotracheal intubation.

We report the case of a 16-year-old boy who developed tracheo-innominate fistula secondary to the prolonged intubation after a pool accident. After 16 days of hospitalization, the patient died as a consequence of massive haemorrhage into the tracheobronchial tree and asphyxia.

It is a rare complication and to our knowledge no case of tracheo-innominate fistula or any case series concerning this rare complication has recently been reported from Serbia. This case report addresses the epidemiology of a trachea-innominate fistulisation as a complication of a prolonged tracheal intubation, with a special overview on the forensic importance of it as iatrogenic injury.

Keywords: *tracheo-innominate fistula, endotracheal intubation complication, iatrogenic injury*

SESSION IV.

THE CHALLENGE OF IDENTIFICATION FOLLOWING THE TRAGEDY OF THE SOLAR TEMPLE (CHEIRY/SALVAN, SWITZERLAND)

Prof. Thomas Krompecher

Institut Universitaire de Médecine Légale, Lausanne, Switzerland

On October 5, 1994, 48 members of the Sect of the Solar Temple were found dead at two different locations in Switzerland: 23 victims in Cheiry and 25 victims in Salvan. Our Institute was commissioned to solve the forensic problems presented by this tragedy. Our goals were to establish the time of death, determine its causes, help elucidate the surrounding circumstances and identify the victims. This catastrophe was of an 'open' type: there was no list of 'passengers'; the victims were of five different nationalities and many had just arrived in Switzerland to participate in this event; family ties were very complex within this group; half of the victims were burned and sometimes charred. All the victims were positively identified within 1 month. In the present report, we describe the steps realized to progress in our work. The importance of being prepared for such an event is discussed.

RADIOLOGICAL FINDINGS VERSUS MECHANISM OF INJURY– A CASE REPORT

Tímea Mai^a, László Török^b, Árpád Szabó^a

^a*Department of Forensic Medicine, University of Szeged*

^b*Department of Traumatology, University of Szeged*

We present a case of a 38-year-old Syrian refugee arrested at the Serbian-Hungarian border, who claimed that he stumbled and fell during running, and an immigration officer trampled on his knee. The officer was under investigation for mistreatment in official proceedings (Act C of 2012 on the Criminal Code). The patient was taken to the emergency room, where he complained of a 10-day history of right knee pain. Physical examination revealed signs of fluid accumulation and stiffness of the right knee, without any visible skin injury. According to his medical records, X-ray examination of the right knee showed a horizontal fracture of the medial condyle of the tibia. These findings were inconsistent with the alleged mechanism of the injury, therefore we re-evaluated the original images, involving a traumatologist consultant. The formerly described horizontal fracture turned out to be an old stress fracture, probably due to prolonged walking. Furthermore, we discovered a recent avulsion fracture of the tibia, which explains the symptoms and indicates that the mechanism of the injury was indirect. Consequently, the assault could not be proved. The reported case highlights the importance of re-evaluating radiologic images in case of conflicting data.

Keywords: *refugee, stress fracture, avulsion fracture, forensic radiology*

SESSION V.

THE FUNCTIONING OF THE BODY OF FORENSIC EXPERTS OF THE SCIENTIFIC HEALTH COMMITTEE AND THE EXPERIENCES OF THE RECENT YEARS

Prof. Tibor Varga MD, PhD

Department of Forensic Medicine, University of Szeged

The structure and the functioning of the Scientific Health Committee was markedly transformed by the Act No. 47 of 2005 on forensic experts and the recently adopted Act No. 29 of 2016 left it unchanged.

Formally, the Body does not issue a higher level of opinion, though, since the Body was previously established, the Scientific Health Committee is asked to form opinion in case of contradiction of opinions. An uncertainty of the profession and the lack of a uniform practice in quite a few topics is palpable. Questions, that ought to be discussed in professional gatherings and that are to be 'examined', are outlined.

Those, who do everyday work, can hardly understand the functioning of the Body. The lecture gives an insight of the opinion forming methods of the Body, of the professional handling of cases, and of the relationship between the Body and courts, the Body and barristers.

HEAT HEMATOMA

RÁCZ KÁLMÁN^a

^a*University of Debrecen, Clinical Center, Department of Forensic Medicine, 4032 Debrecen, Nagyerdei krt. 98.*

Heat hematoma is a rarely found alteration in burnt victims. It develops when the head is exposed to intense heat. It has the appearance of extradural hemorrhage but it is not accompanied by any signs of injury by blunt force. The importance of artifact is that it may be mistaken for a true epidural bleed from a head injury and may mislead the forensic pathologist and investigator into thinking that the fire was started criminally to cover up a fatal assault. In my practice, I had two such cases. I am going to share my experiences in my presentation

QUEST FOR THE HOLY GRAIL OF FORENSICS: IMMUNOHISTOCHEMICAL AGE ESTIMATION OF INJURIES

Roland Weiczner

*Department of Forensic Medicine, Faculty of Medicine,
University of Szeged, Hungary*

Currently, the forensic age estimation of injuries is based on the rule of thumb about the vitality signs, the entry sequence of reactive cells, and the development of granulation and scar tissues. Supravitality, artefacts or the lack of controls, nevertheless, can make the assessment scientifically questionable, even without biases or “inter-observer variability”.

Out of the histological archive of our Department, several cases have been subjected to immunohistochemical stainings for specific cellular markers (CD45, CD68, CD34), for the markers involved in adhesion (ICAM-1, fibronectin) or in inflammatory signalling (TNF α , TGF β). For general orientation, all slides have been stained for haematoxylin-eosin and Prussian blue, as well. Our main area of interest lies under the “fibroblast-threshold” (<72 hours), especially in the initial period of the first three hours after the inflicted injury. This preliminary study aims to raise the question of utility of immunohistochemistry in the age estimation of injuries with different origin.

Keywords: *injuries; age estimation; immunohistochemistry*

THE ROLE OF FORENSIC HISTOPATHOLOGY IN ROUTINE PRACTICE

Dénes Tóth^a

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Pécs, Hungary*

For many years forensic histopathology had been underevaluated in the world. In the recent years there has been an increased awareness of the importance of forensic histopathology (and the forensic microscopy) and that kind of 'trend' reached Hungary in 2014, since an edict (351/2013) obligates the forensic experts to do histological examinations in medico-legal autopsies.

There was 505 medico-legal autopsy between 01.01.2014 and 31.03.2016 in Baranya county. We present the evaluation of the forensic histopathological and autopsy reports of from that period, focused on the usefulness of forensic histopathology, specially cases, in which the histological examination had new, unexpected results in connection with the cause and/or the manner of death.

Keywords: *forensic histopathology, autopsy, hungary.*

HUMAN TRAFFICKING – MIGRANT VICTIMS

Prof. Tibor Varga MD, PhD

Department of Forensic Medicine, University of Szeged

In Austria, the authorities discovered more than 70 bodies of migrants in a van, in August 2015. The human traffickers' route was across Hungary. It was supposed that most migrant victims had died already in Hungary, before crossing the Austrian-Hungarian border. During the examination of the case, questions arose, necessitating the involvement of forensic experts. The lecture is on the forensic aspects of the case and on the deductible lesson.

SESSION VI.

THE INVOLVEMENT OF EXPERTS IN CRIMINAL PROCEEDINGS

Nagy Csaba

*Central Chief Prosecution Office of Investigation
Regional Division in Szeged*

A few years ago, an Austrian citizen, after multiple infringing of the road code, run a policeman over with his Hummer. The policeman was preparing to stop the perpetrator and died due to the suffered injuries. The case had an echo. During the criminal investigation, quite a few forensic opinions were necessitated. Six fields of expertise were involved and several measures of criminal investigation were taken. The lecture shows how the accusation is being formed and how complex is the period of criminal procedure starting from after the bringing about of a crime and up to the accusation by the prosecutor.

A highly important moral of the case is that a close cooperation with the forensic experts and a proper elaboration of the procedure of proof may lead to a quick and correct proof, markedly easing the work done by the investigative authorities and by the prosecutor.

GUNSHOT WOUND “IDENTIFICATION” (COMPLETING THE INAPPROPRIATE MEDICAL RECORDS)

Szabó Árpád^a, Szóke Zoltán^b

^a *Department of Forensic Medicine, University of Szeged*

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On the 11th of October 2012 in Apátfalva (Csongrád County) an Austrian citizen, who was driving home a Hummer H1 in a convoy from an off-road trip, refused to pull over for the police. A few minutes later he decided to stop for the two police motorcycle officers, who joined the police car following him. However, before the identity check ran through, he launched the car and hit the motorcycle policeman who was heading towards him on foot. The policeman fell back on his parked BMW R12 T motorbike. Although the ground clearance of the Hummer H1 was 55 cm, the policeman’s chest got compressed between the car and his motorcycle, leading to fatal injuries. A concrete drainage cover on the roadside broke the left rear hub causing the leakage of the Central Tire Inflation System. Thus the back tires deflated and the fleeing vehicle got stuck on the dragged motorcycle. The injured policeman’s partner opened fire on the car and the driver, who lunged out and was eventually caught with the help of an eye-witness. The driver suffered several gunshot wounds, partly while sitting in the car. Later he claimed that his hand was shot while he was begging for his life on his knees. On the other hand, the police officer alleged, that the accused sustained this injury when he attacked him with a knife. The deficient and partly controversial medical records hindered the determination of the shooting directions. Comparing the skin pattern surrounding the excised entrance and exit wounds with the scars and tattoos of the accused and the bullet holes in the car, we were able to give a definite expert opinion. This however confirmed the statement of the eye-witness who helped in his disarming, not the aforementioned manners of the gunshot injury to the hand.

AN AGGRESSIVE MAN'S DEATH SHORTLY AFTER POLICE INTERVENTION

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A 41-year-old man behaved erratically at the airport and the police was notified. Upon the appearance of police the man collapsed and cardiopulmonary arrest was diagnosed. ALS was immediately started with regular medications and he was taken to a hospital. Cerebral coma was noted during the transportation. Upon arrival at the hospital CT examination of the skull was performed which revealed severe brain oedema without any focal lesion. In the clinical history nothing significant was noted apart from slight frontal headache two weeks prior hospital admission. According to the clinical symptoms (rapid onset, high body temperature) the possibility of neuroinfection was also considered but negative liquor findings ruled out this option. Clinical toxicology was negative, he was under the influence of alcohol at the time of his initial symptoms. The patient died nine days later. Forensic postmortem examination was performed and the results are being discussed in this presentation.

Keywords: *police intervention, intoxication, infection*

I AM POISONOUS FOR YOU!

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What does poisoning mean? Poisoning means that a material on the body surface or in the living organism leads to a disturbance of the equilibrium of the organism, causing sickness or death. Nowadays, almost every material might be a poison. Poisons could be used by cases of homicide or suicide because they are lethal, discrete and not circumstantial, though in some cases, accident can not be excluded.

In old famous criminal cases, poison was a must. Just take cyanic and arsenic for example. Nowadays, the overdosing of medicaments or that of alcohol lead to dozens of deaths per day.

In my lecture, besides historical background, I would like to come up with some interesting poisoning cases, according to autopsy records of our Institute.

THE ROLE OF EXTENDED PATHOLOGICAL EXAMINATION IN SUSPECTED SUDDEN INFANT DEATH (SIDS) CASES

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SIDS is still controversial and subject of various speculations. Only a minority of suspected cases demonstrate pathological changes. Critical evaluation of suspected cases is inevitable because some cases represent criminal actions. It is important to investigate the scene of death, ask the witnesses of death and collect all relevant data about the prior pregnancy and the health issues of deceased. Last but not least, detailed and full coroners' post mortem examination should be performed. SIDS is a diagnosis of exclusion therefore extended histopathological examination cannot be set aside. The direct cause of death cannot be established without performing histopathological, toxicological and microbiological examinations. Our study describes a series of consecutive cases of suspected SIDS investigated during the last five years in the Department of Forensic and Insurance Medicine of Semmelweis University. Extended histopathological examination alone could provide important additional information which helped to establish the correct pathological diagnosis in suspected SIDS cases.

Keywords: SIDS, histopathology, post-mortem

CONSTATS – OR WHAT CAN WE DO WITH MEDICAL DOCUMENTS?

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Institute of Forensic Medicine, University of Szeged

A forensic expert's work is based on the received material. The expert's opinion is based on medical documentations prepared by colleagues working in different fields. Understanding, interpretation and follow up of the documentation is not easy. We see many faulty, wrongful, substandard, contradictory documentations. In many cases, a uniform professional contemplation and wording of the documentation is lacking. The lecture is on these experiences of the forensic expert.

ROCHE DIAGNOSTIC SOLUTIONS IN FORENSIC LABORATORIES

Apáti Sándor

*Roche (Magyarország) Kft.
2040 Budaörs, Edison utca 1.*

Roche (Hungary) Diagnostics division has been successfully working together in many areas both with Hungarian healthcare and life sciences partners through its high-quality products. With adequate and competent IT resources and technical solutions, our products can provide quick and reliable high-quality results that guarantee quality assurance and patient safety. These equipment support modern diagnostics and help increasing the security of modern targeted therapies in Oncology care at all leading Hungarian Medical Universities, major public hospitals, molecular laboratories and pathologies. Roche Diagnostics has a key role in building long-term cooperation with domestic manufacturers. Implementation of Belux voice recognition and dictation software's pathology module is one example that was arranged within the framework of such cooperation.

The presentation provides a brief overview of Roche Diagnostics' products which could be implemented in your forensic science laboratory.

Subsequently the Belux voice recognition and dictation system is presented, which includes a forensic module currently under development by the Department of Forensic Medicine, at the University of Szeged.

SESSION VII.

INJURIES CAUSED BY BITES BY DOGS AND CATS FROM THE ASPECT OF THE VETERINARY

Gábor Kereszty

Veterinary's Office, Sárvár

The frequency of human injuries caused by bites or scratching necessitates a cooperation of physician and veterinary. My aim is to examine the interdisciplinary fields of such injuries.

From epidemiological aspect, rabies is emphasized. Besides historical and statistical data, the Hungarian system of the regulation of animal health is also mentioned. The lecture is also on the oral vaccination of foxes. The rabies has changed during the past decades: today, cats are more exposed to rabies than foxes. A banal transplantational contamination is also mentioned.

Dogs are rarely impacted by rabies. The clinical picture of teeth changing tetanus points out the deterioration of teeth.

Some frequent and typical localisations – hand injury, articulation – are also mentioned as of a forensic character. In case of cardiological patients, stress situation is to be underlined. In case of anticoagulated injured persons, a heavy bleeding and the stress caused by it are also to be mentioned. Tooth and counter-tooth phenomenon is also discussed.

Etiologically, the defence of territory, that of food and that of the off-springs, and also pain reactions play a main role. However, playing, preying and reaction to extreme human actions are mostly the cause of injuries.

DIFFERENTIAL DIAGNOSTIC PROBLEMS CONCERNING A PERSON, DECEASED IN PENITENTIARY INSTITUTE: CASE REPORT

Antal Kricskovics

Criminal Expert and Research Institute

The case report is about a 25-year-old person, imprisoned in a Budapest penitentiary institute, who died in an unnatural way. The death statement by the coroner and the site inspection suggest an unnatural death.

The differential diagnostic problems: symptoms of death by suffocation (point-like haemorrhagia, position of the body); observed external lesion, high body temperature, which might have been caused by hyperpirexia; the latter one suggests consumption of narcotics. The consumption of narcotics (p-metil-4-aminorex) was verified by extraordinary forensic dissection and toxicological examination, which, shortly after, led to the termination of the criminal procedure.

The death by suffocation and the hyperpirexia reaction have partly similar, partly different symptoms. This differentiation and the background criminal investigation are presented during lecture, emphasizing a need for a complex investigation of death cases.

INJURIES OF OROFACIAL REGION IN CHILDHOOD

Kasza Barbara

Szegedi Tudományegyetem Fogorvostudományi Kar, egyetemi hallgató

Nowadays after an injury has occurred, patients get treated but they do not get any advice on preventing these injuries. Even the most precise dental work cannot replace someone's natural teeth which can cause mental and bodily traumas. Babies, children and adolescent are the most common age group related to this area's injuries during playground activities, sports or work out.

Children between age 3 and 18 spend most of their time at school, hence getting hurt usually happens in these institutes. I conducted a survey among Hungarian teachers to find out how much they really know about orofacial traumas and also if they know how big their role is related to treatment of these injuries.

Hopefully in the future we could make a course where teachers could learn about helping injured kids. Also, using social media network or placing posters and pamphlets in school could popularize prevention.

Keywords: *injuries in childhood, orofacial injuries, orofacial traumas, prevention*

FORENSIC ANALYSIS OF INJURIES IN DENTISTRY

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Introduction: Analysing the dental injuries we found the documentation and opinions being rather problematic. It needs a professional evaluation, why the dental injury is out of focus, and how the diagnosis, the pattern and the treatment is influenced by the new possibilities of dentistry.

Aims: Tipization of the dental injuries, the comparison of the literature and our own research data on the type and characteristics of the injuries, setting a diagnostic scheme.

Method: Analysis of the expert's reports in 2009-2013 at the University of Szeged, Department of Forensic Medicine.

Results: In circa 7000 reports there were 20 cases, while according to the literature dental injuries occur significantly more often.

Conclusion: There are negligibly few „dental cases” among the reports, while there were more cases, where the trauma probably affected the teeth being not documented. Origine of the injuries, the therapeutic strategy and prognosis needs a higher thoughtfulness in the future.

Keywords: *dental injury; injury report; compensation; expert's opinion in dentistry*

A PROSPECTIVE OBSERVATIONAL STUDY OF RUGOSCOPY: A RELIABLE, CHEAP AND ACCURATE METHOD FOR FORENSIC IDENTIFICATION

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This prospective observational study was created to identify the advantages and disadvantages of rugoscopy. After, a comprehensive literature review on forensic dental or forensic odontology methods and of course on rugoscopy, a prospective observational study was launched to find the easiest, the cheapest, the most reliable and accurate method of the rugal identification. At the first time, possible new and well-known old methods were compared and the best ones were selected for further examination. Dental-clay, salt-dough, intraoral and 2D camera was found good enough for further examination as a result of this part of the study. In the second part of the study a new rugal identification algorithm (which was the extension of the Thomas-Kotze method/classification of rugoscopy) were introduced and tested on voluntaries. This study found many specific advantages of rugal identification compared to the other method and measured its high specificity and sensitivity with or without clinical background.

Keywords: *rugae, rugoscopy, identification, forensic, dental*

LAW AND ETHICAL ASPECTS OF DIFFERENT OBSTETRICS, GENETICS AND BIOCHEMICAL METHODS DURING THE PREGNANCY

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The objective was to observe and identify the problems of the genetic, biochemical and obstetric procedures. These methods could have a hidden questions and conclusion, which is no clearly explained. The methods was had two parts. after a comprehensive literature review on these methods, a law and ethical analysis were performed. Thus, our study deals with various methods including certain prenatal screening and diagnostics methods which are widely know and advertised by different private companies but not so easy to use and require advanced background. After the detailed ethical, law, and clinical examination of our cases and the literature, the conclusion was important from practical and clinical aspects. In contrast with high efficient prenatal screening procedures, the genetic screening procedures were harder to explained, much expensive and useless in clinical conditions. However, the most common problems were the lack of the administration, the lack of relevant informations and consultation.

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