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THE DVI HUNGARY AND ITS' FIRST DEPLOYMENT

Abstract

This paper is on the disaster victim identification process, under the Interpol protocol. The protocol has five phases and offers a scientifically sound methodology to identify the deceased. After several years of planning, Hungary has established the DVI Team in 2018. Although, even before 2018 some mass fatality disasters occurred. In 2019 was the first deployment, after the accident of the Hableány sightseeing cruise, in Budapest, which caused the death of 29 and the missing of 1.

Keywords: disaster, victim, identification, DVI, Interpol, mass fatality incident, Hableány

A DVI ÉS ANNAK ELSŐ BEVETÉSE MAGYARORSZÁGON

Absztrakt

A cikk a tömegszerencsétlenségek áldozatainak azonosítását (DVI) mutatja be, az Interpol előírásai szerinti eljárás alapján. A DVI öt lépésből áll, amely egy tudományosan megalapozott áldozatazonosítást tesz lehetővé. Másfél évtizednyi tervezés után Magyarországon 2018-ban jött létre a DVI egység, pedig halálos tömegszerencsétlenségek már korábban is bekövetkeztek. Az első bevetésre 2019 májusában került sor a Hableány sétahajó budapesti balesetét követően, amelyben 29 fő vesztette életét, egy főt pedig a mai napig eltűntként tartanak számon.

Kulcsszavak: katasztrófa, áldozat, azonosítás, DVI, Interpol, tömegszerencsétlenség, Hableány



1. THE DVI

The Disaster Victim Identification (DVI), the scientifically sound identification of victims of mass fatality incidents, is a particular, complex, interdisciplinary field of modern forensics and police sciences.

For DVI, contrary to the Hungarian law, disaster means a mass fatality incident, when the number of simultaneous deaths can be handled and legally processed beyond the possibilities available for the local authorities at the moment. [1] (The Hungarian Criminal Law defines the „lethal mass accident”. The Act of Disaster Management defines „catastrophe”. The Act of Taxation defines „natural disaster”. All the three differ from each other and do not describe the mass fatal incidents properly.)

DVI is not only the term for the methodology but also a name of an organization. The DVI has been a standing committee of Interpol since 1980, which issues Interpol DVI Guide [2] and DVI forms, connects the 190 Member States, and helps identify victims of mass disasters. Since 2016, the Standing Committee has been operating as a working group (WG), but this did not affect its' activities.

The basic philosophy of Interpol DVI is an interdisciplinary approach, standardized procedures, preparation for organization and training, and, last but not least, respect for dignity and humanity.

The DVI methodology contains five different steps. The scene recovery, the PM, the AM, the reconciliation and, the identification.

The scene recovery. [3] From the incident scene, all of the body, body parts, body fragments, and personal belonging have to be recovered. Each exhibit has to be properly documented, labeled, packed, and sealed. The scene can be huge, for example after an earthquake or airplane crash, or can be small like a bar fire incident, or mass fatality in a truck during illicit human trafficking.

The PM is for post mortem, this is the phase for investigation in a morgue. [4] All data have to be filled in the unified „DVI PM form”, the so-called pink form. The aim in the morgue, unlike a criminal investigation, is the collection of identifiers. (Identifiers will be explained



later in more details.) The examinations about the cause of death are not part of the DVI process, but, naturally, can be done perpendicular, at the same time.

The AM is for ante mortem. [5] This is the phase for investigation of the missing person, the contact of the missing person's family. All data collected from family members or friends have to be properly recorded in the unified „DVI AM form”, the so-called yellow form. All medical files, dental records have to be collected and attached to the AM form. Photos of the missing person can be collected even from social media. Tattoos, pieces of jewelry can be chosen from catalogs by family members if they are not able to show a photo of it. Official databases have to be checked for fingerprint or DNA records, if no records were found, personal belongings can be collected from the missing persons' home or hotel room. (Comment: the DVI AM team should never say „victim” or „dead person” when connecting family members – the correct expression is the „missing person”)

The reconciliation phase [6] is for comparing the AM and PM data. It can only be started when every AM and PM form is filled and finished. During a reconciliation have to be minded: victims of a disaster can die in hospital, or body parts can be found from living victims, whose family will not report his or her missing. (So: in some cases, the number of AM and PM forms do not match each other.)

After the reconciliation phase, the Identification Board will declare identification. The composition of this Board will be determined by the existing legal framework. Members could be high-level police officers, prosecutors, observers from foreign DVI units, etc. The ID Boards' responsibility is the compilation of results from the Comparison Report into a Victim Identification Report and approval by signature, by the signatory with jurisdiction. This record is then regarded as a formal confirmation of the identification of a deceased victim.

There are two main classes of identifiers, the primary identifiers, and the secondary identifiers. Any of the primary identifiers may be able to establish an exact identity on their own, secondary identifiers are usually not capable of doing so on their own. Primary identifiers are the fingerprints, the dental records, and the DNA. Secondary identifiers are the anthropological findings, medical findings, tattoos, scars, jewelry, and other personal belongings. It is also important to stress that visual identification can be very unreliable and therefore this form of identification should not be considered alone.



2. THE DVI IN HUNGARY

The 70th Interpol General Assembly was held in Budapest at the end of September 2001, just after the terrorist attack on the United States. About 650 delegates came to Hungary representing 140 countries at the one-week series of events. The topic of the general meeting was, of course, updated to the events, so the prevention of terrorism became a priority topic. Several speakers referred to victim identification efforts and argued for standardization and international cooperation. The law enforcement and scientific society of Hungary at that time were faced with the fact that the fast and yet scientific sound identification could not be carried out without adapting the protocols and standards and maintain proper international cooperation. Despite no significant progress has been made for years.

After the 70th General Assembly, some mass fatal incidents have occurred in Hungary.

2003. Siofok, Somogy county, near Lake Balaton. Bus of German tourists was collided by a train in a railway crossing. 33 people died. Hungarian authorities were strongly supported by the German DVI team, the identification efforts were made by the German DVI team.

2006. Hejce, Borsod county, near the Slovakian border. An Antonov-24V aircraft of the Slovak Air Force collided with Borso-hegy („Pea Mountain”) and crashed. 42 people died, only one survived. Scene recovery and scene investigation in the stormy winter night revealed that the Hungarian police were not able to face this scale of events. Victim identification processes were conducted in Slovakia.

2010. Ajka, Veszprem county. The tailings pond of an aluminum factory was damaged and several tons of highly corrosive red mud were flooded to three local villages. Despite the 10 fatal victims, no DVI processes were conducted. As far as we know, no victims were considered as an unidentified bodies.

2011. M43 Highway, Csongrad county. Romanian citizens died in a traffic accident when their minibus has collided with a truck. Despite the 14 foreigner fatal victims, no DVI processes were conducted. As far as we know, no victims were considered as an unidentified bodies.



2018. Cegledbercel, Pest county. The driver of a 9-seat minibus was using his smartphone to stream live video, and this caused a traffic accident. The driver and the other 8 passengers died. Author 2 was involved in this case, so some rudimentary elements of the proper DVI process were conducted: bodies were labeled with reference numbers instead of names. Labeling with names always involves the assumption of preliminary identification by documents or something like this. All of them were ten-printed and DNA samples also were collected.

Besides that, a Hungarian forensic pathologist could join the DVI Austria in Phuket, Thailand, at the beginning of 2005, to respond to the Boxing Day Tsunami. The same pathologist went to Egypt at the end of 2011, where 11 Hungarian tourists died in a traffic accident. [7] In 2017, in Verona, Italy, a Hungarian bus had an accident. 17 people, mostly secondary school students and their teachers were burned to death. Hungary sent only traffic police units to the scene, with no forensic or DVI experts.

In the November of 2017 by a joint effort of Counter-Terrorism Centre (TEK), the Hungarian Police, and the Semmelweis University (a medical university in Budapest) an international conference was held in Budapest. The current chairman of the Interpol DVI Working Group also took part in it, and close cooperation was started to train a Hungarian DVI Team. In the Summer of 2018, a four-day course was held for 25 Hungarian law enforcement officers and 10 forensic pathologists and odontologists. This was the actual establishment of the „DVI Hungary”. At this first step, the scene recovery and PM teams were trained. Till 2021 no AM team had been trained, no official establishment had been made, no amendments of legislation had happened.

3. THE FIRST DEPLOYMENT OF DVI HUNGARY

In 05. 29. 2019., Budapest, Hungary, the Hableany, a Moskvich-class sightseeing cruise was collided from behind by a twenty-five-times bigger longship, MV Viking Sigyn. The Hableany (a Hungarian word for Mermaid) capsized and sunk in seven seconds. On that



evening the weather was unusually cold, there was heavy rain, and the River Danube was flooding, the drift of the river was very strong.

The Hableany sightseeing cruise had 35 South Korean citizen tourists as passengers and 2 Hungarian crew members. Seven people were rescued some minutes after the accident and eight dead bodies were found till the morning. In the next weeks, all but one body were found, one South Korean female passenger is still missing.

After the accident, three processes have been started:

- a criminal investigation, conducted by the Police of Budapest, because of a „crime against maritime safety cause a mass fatality incident”. [8]
- a rescue operation, conducted by the Counter-Terrorism Centre (TEK), with the participation of the Hungarian National Organisation for Rescue Services (OKF), Hungarian rescue divers, the „Cobra” special military diving unit of Austria, and military diving troops of South Korea.
- a victim identification process following the Interpol Disaster Victim Identification (DVI) standards. This process was led by the National Bureau of Investigation (KR NNI) and performed by the DVI Hungary, which is not an officially approved entity. Fingerprint experts of South Korea also joined.

The „DVI Hungary”, as was mentioned above, had been not officially established, but trained members have been working together since 2018. Members are

- from police forces, like KR NNI and others,
- from the Hungarian Institute for Forensic Sciences (NSZKK)
- from the University of Public Service (NKE)
- and from the Institutes / Departments of Forensic Pathology of the four medical universities.

The „DVI Hungary” is led by the head of the Department of Crime Scene Investigation at the National Bureau of Investigation (KR NNI – BTFO).



All of the victim identification processes were fulfilled under the Interpol DVI Guide. This was a perfect framework for the Hungarian and South Korean DVI Teams. The official DVI AM and PM forms were filled in English. At the request of the South Korean officials, contrary to Hungarian regulations, no autopsies were performed.

Every South Korean victim but one was identified by fingerprints. The South Korean authorities have the ten-print records of every citizen over 17 years old. Initially, the fingerprinting could be done by the inking method, later more specific methods were needed to be applied. Air was injected into the fingertip and a string was used to squeeze the finger, not to release the injected air. This pumped the fingertip enough big to be able to be printed with dusting-lifting technic. Later the boiling method was applied: the fingers were put to hot water and after drying the dusting-lifting technic was used.

Also, the dental record was taken from every deceased. The Korean victims were middle-class people with well-groomed teeth and accurate dental records. One South Korean victim was found five weeks after the accident and could not be printed, so she was identified by secondary identifiers: scars, jewelry, clothes, and anthropologic features.

4. THE LESSONS WE LEARNED

The „regular” forensic examination of the deceased is too slow. The Hungarian legislation contains rules for examining a dead body, additional rules for examining unknown bodies, and additional rules for examining victims of a crime. According to the very comprehensive rules, much useless information had to be collected, like the exact geographical data or the detailed description of the morgue. The process of one body was 150-180 minutes, compared to the DVI PM process, which was 40 minutes.

Furthermore, the „regular” forensic examination of the deceased resulted in a Hungarian form, which was too detailed on one hand, as it was mentioned above. On the other hand, the very detailed Hungarian form still had lack of essential information. For example, the dental status in the Hungarian form can be „repaired” or „intact”, with no further details. The DVI PM form contains every needed information, except the disaster-related injuries. But those



injuries and every relevant pathological finding can be recorded on the additional pages of a PM form.

The numbering and labeling of the bodies with the DVI numbers were effective and unavoidable. The usual labeling of unknown bodies is „N. N.”, sometimes supplemented with „male” or „female”. After the Hableany accident, the authorities needed to face more than one „N. N. male” and more than one „N. N. female”, which urged the introduction of a new labeling system. So they numbered the bodies as well (i. e. „N. N. male 2”). Later for an unknown reason, the police started to label the bodies with letters as well. The DVI unit started to use the DVI PM labeling (i. e. PM 36 1001) as well. The letters (from B to AF) were kept in use for an unknown reason. Some bodies had three different labels, some had two. This seemed to be illogical and useless.

Although the process had been done under the Interpol standards, in some cases still an inappropriate way was followed. The Hungarian citizen victims were not subjected to the Interpol standard procedure. On the very first day, a Caucasian corpse was found in the water, which was the eighth body, and was excluded from the DVI by visual observing only. One South Korean victim was processed without filling any DVI PM form, yet got a DVI number and label.

5. CONCLUSION

Three years after the practical establishment of DVI Hungary and two years after the first deployment in an international-related event, the unit still does not have any legislative background, budget, organization, or any kind of official approval. Team members from Universities or the private sector, like the odontologists, can not be paid for their contributions. Any conditions of foreign deployment are entirely undeveloped. There are no clear DVI management roles defined yet.

The AM team, the reconciliation team, and the ID Board are entirely not formed, their procedures are not regulated. The comprehensive and too detailed rules for crime scene



investigation and death investigation simply block the cooperation between DVI and „regular” criminal work.

The place of the DVI Hungary in the system of public administration might be under the OKF (Hungarian National Organization of Rescue Services). The OKF already has a heavy urban rescue team (HUNOR), which can be deployed even in foreign disaster scenes.

Most of the team members are still enthusiastic which is largely due to the overall successful first deployment, and the exemplary collaboration with the South Korean colleagues.

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Pictures



Author 1 on scene recovery, after the Hableany accident, 2019



Author 1 performs an air injection method for fingerprinting after the Hableany accident, 2019.



Recovering the Hableány. <https://hajozas.hu/wp-content/uploads/2019/06/Kiemeltek3-Hableany-Hajoroncs-Uzaly-Clark-Adam-Uzodaru-Hajozashu.jpg> (2021. 02. 25.)



South Korean expert works together with a Hungarian college after the Hableany accident, 2019.



Forensic odontologists performing dental record collection after the Hableany accident, 2019.



(Unofficial) badges of DVI Hungary