Ten years after- Challenges of Human Remains Identification on the Territory of Kosovo and Metohia

Matejic Suzana1, Miletic Milanka1, Mihajlovic Branko1, Deletic Nebojsha2, Boskovic Vesna3, Todorovic Danijela4, Minic Zivana4, Hajrovic Sefcet5, Todorovic S. Milos4
1University of Pristina, Faculty of Medicine in Kosovska Mitrovica
2University of Pristina, Faculty of Agriculture, Lesak
3The Missing Persons Commission Government of the Republic of Serbia
4University in Krusevac Faculty of Medicine
5General Hospital, Novi Pazar

Abstract

After the armed conflicts throughout the nineties of the twentieth century occurred in former Yugoslavia, identification of war victims is a challenging task. This paper gives a detailed description of exhumed remains identification process. One of the study objectives has been a comparison between DNA results and traditional forensic identification methods. This paper deals with the identification of human remains that were exhumed in Kosovo and Metohia in the period 2001-2011, belonging to Serbs and other non-Albanian ethnic communities (Montenegrins, Bosniaks, Roma, Gorani, and others), as well as a much lower number of Albanians who were also killed during the war and post-war period. The exhumation and identification of human remains began even during the armed conflict, continued with a high intensity immediately after the establishment of UN administration in the province, and from the end of 2001 among the identified victims dominated those of non-Albanian origin – Serbs, Montenegrins, Roma, and others. The experience of this process and the experience of other countries show that there is a need to organize appropriate services for identification of human remains in Serbia, capable to react effectively in case of mass disaster.

Keywords: identification, exhumation, human remains, Kosovo and Metohia
Introduction

In the last twenty years or so, many unexpected challenges have appeared in the identification of unknown human remains, which led to significant advances in this field. The most famous mass identification campaigns, capable of giving us some lessons to be learned, were those after the attack on World Trade Center (WTC) on 9/11, Indian Ocean tsunami in 2004, as well as experiences of human remains identification after the armed conflicts in Croatia and Bosnia and Herzegovina and in Kosovo and Metohia.

After the armed conflicts throughout the nineties of the twentieth century occurred in former Yugoslavia, a special task is identification of war victims, as well as victims of war and post-war crimes, buried in individual grave sites and in mass graves, having in mind that exhumations are usually done many years after their deaths, often dealing with secondary or tertiary graves. During armed conflict, and especially after the establishment of UN administration in Kosovo, in the presence of international military and police forces, disappeared 1,441 people of Serbian, Montenegrin and other ethnicities, including certain number of Albanians loyal to Serbia. Available data indicate that most of these people were killed, and their remains were buried in different ways – in hidden and unmarked individual graves or in mass graves.

The fact that Kosovo and Metohia are not under the jurisdiction of Serbia for more than ten years limited participation of Serbian institutions in the process of recovering and identifying human remains. Therefore, this paper deals with the identification of human remains that were exhumed in Kosovo and Metohia in the period 2001-2011, belonging to Serbs and other non-Albanian ethnic communities (Montenegrins, Bosniaks, Roma, Gorani, and others), as well as much lower number of Albanians who were also killed during the war and post-war period. This paper has been aimed to consider certain aspects of the exhumed human remains identification, which are consequences of local specificity and a lot of peculiar events. One of the study objectives has been a comparison between DNA results and traditional forensic identification methods.

Material and methods

Happenings connected with the armed conflict in Kosovo and Metohia resulted in lots of people missing: in the period 1998/99 and during the NATO air campaign in 1999 more than 4,000 people belonging to all ethnic groups were missing, while after establishment of UN administration additional thousand people went away, mainly those of non-Albanian origin. Associations of missing persons’ families in Serbia claim about 1,400 people, about two-thirds of whom disappeared after the war.

The process of human remains exhumation and identification practically began during the mere armed conflict, but its full extent was reached after establishment of UN administration in Kosovo and Metohia. In the beginning, during 1999 and 2000, the highest number of identified victims belonged to the Albanian ethnic group, and after that, in fact since spring 2002, identification of victims who belonged to other ethnic groups, primarily Serbs, was initiated. To the date, joint teams featured by our experts have exhumed remains of 418 persons, which were then examined along with remains of 51 persons exhumed without attendance of our experts. By the end of 2011, of the total 469 examined sets of exhumed human remains, 340 people were identified, and the remains were returned to their families. Among the identified persons, in nineteen cases DNA analysis was not carried out.

Human remains exhumation included burial sites mapping in the grid using standard archaeological techniques. Position of human remains was photographed, as well as their orientation and relationship between different people and things, and all the photographs included date and identification number. Team members also photographed and mapped all the accompanying elements of the body (clothing, hair, coffin, bullets, etc.). Human remains were packed in plastic bags, labeled, dated and numbered, and the same was done with supporting elements. The main task of this process was to reconstruct the facts surrounding grave sites and collect the all relevant information that could be useful for determining cause and manner of death and victim identification (Kirschner and Hannibal, 1994; Matejić, 2005).
Examination of the exhumed human remains was carried out in the Office of Missing Persons and Forensics. This institution was established by UN Mission in Kosovo (UNMIK) in June 2002, and it ran within that mission under the name UNMIK OMPF up to 12/9 2008 (UNMIK, 2008), when it fell under jurisdiction of the European Union Rule of Law Mission (EULEX), under the changed name EULEX OMPF. OMPF headquarters and mortuary facility were established in Orahovac, where most of the autopsies were performed, although greater part of this institution was moved to Pristina, so that later autopsies were carried out there. During postmortem examination of human remains, they were analyzed by specialists in forensic medicine and anthropology. In addition, clothing and personal effects found with human remains were examined, packed and labeled by the same label used to mark the corpse on which, or next to which, they were found. Skeletal remains were also examined in an anthropological manner. The entire procedure was documented by photographs and video recordings. When necessary, radiographic methods were used.

Samples for DNA analysis were collected mostly from long bones, teeth, cranial bones or ribs, and were processed in the laboratories of the International Commission on Missing Persons (ICMP). Ante mortem data (AM data) were collected from families of persons missing in connection with the armed conflict in Kosovo and Metohia, in cooperation with the International Committee of the Red Cross and other organizations. These are data regarding physical characteristics of missing persons, birthmarks, dental status, health status, etc., that may be of importance in the process of human remains identifying. Along with the collection of AM data, blood samples for reference DNA analysis were taken from relatives of missing persons.

The whole procedure of analyzing DNA sampled from unidentified human remains, DNA analysis of reference samples of missing persons’ relatives and expert interpretation of the obtained results, was organized by ICMP, and that institution was entirely responsible for the process.

**Results and discussion**

Since June 1999, exhumations were performed by ad hoc teams of international experts in forensic medicine, who worked for the International Criminal Tribunal for the Former Yugoslavia (ICTY). Between June and November 1999 the 2,108 bodies were exhumed at 195 locations. In the second phase, conducted between April and November 2000, ICTY exhumed 1,557 bodies and 285 incomplete remains from 325 locations. On July 17th 2001, the tribunal reported that the total of 4,392 bodies had been exhumed from 876 graves in Kosovo. Forensic expert teams who worked for ICTY performed postmortem examination and other forms of forensic expertise (anthropology, forensic odontology, etc.) in 3,620 of those human remains, and then successfully identified 2,099 victims, whose remains were returned to their families for burial. Afterwards, approximately 1,500 unidentified bodies were buried in two UNMIK cemeteries and other municipal cemeteries for “later” identification.

When exhumations discussed in this paper are considered, in 2001 three bodies exhumed earlier have been identified and delivered to their families, so that year is included in this paper. The number of bodies exhumed by year is shown in Table 1 and Diagram 1.
As it can be seen, most of exhumations were performed in 2002 and 2003 (total 271 or 68.78%). Reasons for such an initial “success” are numerous. There was a great political pressure, sufficient amount of (mainly international) money was coming, and information regarding potential group and individual grave locations were more easily available. Since 2004, a significant reduction of international forces occurred. Also, process of jurisdiction transfer to temporary administrative bodies progressed from year to year, and culminated in 2007 with unilateral declaration of Kosovo independence, which slowed down the process of identifying primarily non-Albanian victims. Number of postmortem examined human remains (Table 2. and Diagram 2.) followed a similar tendency, and 60.90% were autopsied in 2002 and 2003.
Table 2. Number of postmortem examined human remains by years

<table>
<thead>
<tr>
<th>Year</th>
<th>Postmortem examined human remains</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>0</td>
</tr>
<tr>
<td>2002</td>
<td>110</td>
</tr>
<tr>
<td>2003</td>
<td>161</td>
</tr>
<tr>
<td>2004</td>
<td>22</td>
</tr>
<tr>
<td>2005</td>
<td>70</td>
</tr>
<tr>
<td>2006</td>
<td>50</td>
</tr>
<tr>
<td>2007</td>
<td>18</td>
</tr>
<tr>
<td>2008</td>
<td>3</td>
</tr>
<tr>
<td>2009</td>
<td>11</td>
</tr>
<tr>
<td>2010</td>
<td>18</td>
</tr>
<tr>
<td>2011</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>469</td>
</tr>
</tbody>
</table>

Diagram 2. Percent of postmortem examined human remains by years

Increase in the number of exhumed and postmortem examined bodies observed in 2005 and 2006 is the result of discovery of several mass graves, especially those in locations Volujak near Klina and Široko near Suva Reka. The observed dynamics of exhumed human remains identification also depended on other factors.

The total number of postmortem examined human remains was greater than the number of the exhumed ones, because 51 bodies were exhumed without our experts present at exhumation, but involved in other stages of the process. Of the total number of postmortem examined human remains (469), 340 of them were identified during the studied period, while 136 bodies remained unidentified, which was nearly one-third of the total body count (Diagram 3.). Share of identified persons in the total number of missing persons was much lower,
and there are numerous reasons for that. However, analysis of factors for which it is not possible to find and identify more missing persons, at least for now, is a separate subject, so we will not deal with it here.

Diagram 3. Share of identified persons in the total number of exhumed human remains

Identification using traditional forensic methods is difficult due to the state of exhumed human remains and lack of medical and dental records containing detailed information. Classical forensic methods include collection and analysis of ante mortem data and personal effects, as well as anthropological methods. However, having in mind the way those people died, subsequent transfer of human remains, and the fact that a significant period of time usually passed from their death, identification of exhumed human remains cannot be based solely on these methods. Success rate in identification of human remains has significantly been improved by applying the latest discoveries in the field of DNA analysis.

At the very beginning (the first half of 2003), DNA samples were taken and analyzed as an addition to conventional methods when they were not able to assure positive identification, then as the only method when conventional identification was not possible, or at family request for confirmation of identity. Later, the DNA identification was required. Hence, 32 people were identified solely by classical methods, and in 43 persons DNA identification was performed as an addition to classical methods. Afterwards, 13 families requested DNA analysis to confirm identity, so that at the end 19 people were identified only by classical identification, 56 persons by classical and DNA identification combined, while for other 234 persons DNA analysis was the method of choice (Diagram 4.). However, the importance of traditional methods of identification should not be questioned, and they were applied whenever possible. In 14 cases, when results of DNA analysis indicated match, but were inconclusive (probability of matching 96-99.9%), confirmation of identity was accomplished by classical methods.
Conclusion

The exhumation and identification of human remains began soon during the armed conflict, continued with a high intensity immediately after the establishment of UN administration in the province, and from the end of 2001 among the identified victims dominated those of non-Albanian origin – Serbs, Montenegrins, Roma, and others. When missing persons predominantly of Serbian ethnic origin are considered, during the period from 2001 up to the end of 2009 human remains of 469 persons were exhumed and examined; these exhumations and subsequent examinations of the remains were carried out by international teams featured by Serbian experts. Every exhumation performed by these teams was followed by an autopsy, and 32 persons were identified using conventional methods. Afterwards, at their families’ request, DNA identification was carried out for 13 of them, which confirmed the findings got by classical methods. Remaining 437 of the exhumed human remains were identified by DNA analysis as a primary method of identification.

Less than a third of the total number of missing persons was identified (according to some sources less than a quarter). DNA analysis is the “gold standard” for identifying human remains of people killed during armed conflicts or in other kinds of mass disasters. The process of DNA identification was carried out in laboratories of the International Commission on Missing Persons (ICMP). The whole process was fully controlled by this institution, from receiving samples taken during exhumations and DNA samples taken from victims’ family members, through laboratory analyses, to keeping DNA profile databases, match finding, and the final case conclusions. Results of DNA analyses were delivered in encrypted form, in a completely non-transparent way. Based on our experience and the experience of other countries it is clear that there is a need for establishing appropriate agency for identifying human remains of unknown identity in Serbia, in order to ensure an effective reaction in case of mass disaster.

Acknowledgments

This investigation was supported by the Commission on Missing Persons Government of Republic of Serbia and Ministry of Education, Science and Technological Development of the Republic of Serbia, grant No. III41010.
Literature

1. US National Institute of Justice Special Report (2006); Lessons learned from 9/11: DNA identification in mass fatality incidents. U.S. Department of Justice, Office of Justice Programs, Washington DC, USA


Autor za korespondenciju
Suzana Matejić
University of Priština,
Faculty of Medicine at Kosovska Mitrovica,
matejics@gmail.com