

# ICTY OPERATIONS in CROATIA 2001

## Knin Cemetery Grave-site

### REPORT of the CHIEF PATHOLOGIST

#### Introduction

In the summer of 2001, as part of ICTY operations in Croatia, autopsies were carried out on bodies recovered from a cemetery at Knin (**Knin Cemetery**). The bodies were exhumed by an ICTY field team and transferred to the mortuary facilities at Šalata Hospital in Zagreb, where the autopsies were carried out. This report deals with the findings of these autopsies.

The mortuary team had fairly limited information about the cases but were aware that they were said to include alleged victims of Operation Storm, the military offensive reported to have been carried out against the Serb population in the Krajina region of Croatia from August to November 1995.

From visiting the grave-site at Knin and from information provided by the field team, it was known that the bodies came from different areas within the cemetery and that they also included what appeared to be the bodies of hospital patients, together with a number of foetuses and surgically amputated limbs, clearly nothing to do with the ICTY investigation. However, all material exhumed was passed on to the mortuary and analysis of the findings for this report takes into account these additional cases.

#### Graves exhumed and the numbering system used

Four areas of Knin Cemetery were investigated and uncovered by the Field Team, identified respectively as **KN01**, **KN02**, **KN03** and **KN04**. The majority of the bodies came from KN01 while most of the 'hospital cases' and surgical amputations came from KN02 and KN03. In addition to whole bodies there were substantial numbers of body parts, the nature of which are discussed at various stages.

At the grave-site the bodies were given a number, to which was appended **B** to denote a whole body, or **BP** to denote a body part. These numbers, although sequential, were not necessarily consecutive, with intervening ones being allocated instead to clothing, personal items or identification tags that had become separated in the grave, and to other artefacts such as bullets or shell cases. The final designation for the human remains would therefore appear as, for example: KN01 235B, KN02 092B, KN03 141BP etc.

There was, in addition, a pre-existing numbering system for many of the bodies. This was in the form of a metal tag with a number imprinted on it, attached usually to one or other of the wrists and presumably placed there at the time of burial. These numbers were noted in the autopsy records but it was the ICTY numbering system that was used in all further dealings with the body. Some bodies had no tag, while some tags had clearly become detached from the remains whilst in the grave and could not be associated.

Many of the bodies recovered had been buried in plastic body bags and some were in coffins; others were in neither and were lying free within the grave. While some detail is provided later in this report, a full description of the findings at the grave-site should be available from the field team. For the KN01 grave a Body Recovery Form was completed for each case as the body was removed, and these forms were available in the mortuary prior to each autopsy.



Also made available by the investigating team were photographs taken in the past, showing many of the bodies prior to burial, some lying in the open, presumably where the person died, but others already laid out in the already excavated grave. The bodies were generally intact, but showed varying degrees of decomposition and a variety of injuries, whether ante mortem or post mortem. While these photographs were interesting and informative, any observations made from them had to be done with caution, given their uncertain provenance (at least to us), and the difficulty in strictly matching up remains photographed with those later uncovered.

No formal identities were known at this stage and the mortuary work proceeded on that basis i.e. simply using the ICTY anonymous numbering system. Identifications have clearly been made or confirmed since and will be used later in the report, but initial comments refer to numbers only.

### Receipt of the bodies in the mortuary

The bodies from Knin were transferred to Zagreb at various times as the exhumation work progressed. Thus, the first batch was already at the mortuary prior to the commencement of the work there on 14<sup>th</sup> June 2001, and further batches arrived on 28<sup>th</sup> June and 9<sup>th</sup> July. The mortuary work itself ran from 14<sup>th</sup> June until 27<sup>th</sup> July, a period of just over 6 weeks.

In the mortuary, the numbering system from the grave-site was continued. During the course of the autopsy work however, with the benefit of being able to examine the bodies in detail, certain separations and re-associations were made with the remains (e.g. removing co-mingled bones from a main body and making them into a separate body part, or placing what was originally a body part with a main body when it became very obvious that the two were connected). This produced slightly differing totals from those perhaps recorded at the site, but this was no more than would be reasonably expected in an exercise of this sort.

The final body totals therefore, after completion of all the mortuary work, are as listed below:

Grave	Bodies	Body parts
KN01	186	31
KN02	40	12
KN03	40	48
KN04	29	3
<i>Totals</i>	<i>295</i>	<i>94</i>

This gave a total for the whole grave-site of **295 bodies** and **94 body parts**, amounting to **389** separate cases having been dealt with in the mortuary.

These numbers were for **all** cases i.e. they included not only those dying a violent death but also those who appeared to have been normal hospital patients buried in this cemetery, plus all the unrelated surgical specimens. Revised numbers are given in the discussion of the individual graves but as an initial guide - of the 295 bodies, 245 were probably 'true' cases, and of the 94 body parts, perhaps about 50 appeared to be relevant.

### Operation of the mortuary

As already stated, the autopsies on the recovered bodies were carried out in a purpose built mortuary at Šalata Hospital in Zagreb. There was full co-operation with the local pathologists from the Croatian National Institute for Forensic Medicine, although they played no part in the autopsy work whatsoever, other than accepting the bodies back when the work was complete (in batches – on 3<sup>rd</sup> and 17<sup>th</sup> July, and on 1<sup>st</sup> August).



A team of up to 20 people worked in the mortuary, drawn from a wide variety of countries and continents, and at any one time included three forensic pathologists, three anthropologists, technicians, scenes of crime officers, photographer, radiographer, technicians, 'clothes washers', and secretaries. There was additional support staff.

The work followed a fairly standard pattern, with well established procedures and standards. The process can be summarised as follows:

- Bodies or body parts removed daily from an refrigerated storage reefer, transferred to internal fridges, and from there into the autopsy room, with numbers logged on various work sheets.
- Body fluoroscoped (a form of x-ray) to look for and locate any metal fragments, in particular, bullets or shrapnel, with print-outs made of the findings and filed with the autopsy report.
- Post mortem examination carried out involving, as appropriate:
  - initial and subsequent photography of relevant findings
  - removal of clothing, for washing and later description
  - retrieval of any possessions or other identifying items such as documents, jewellery etc
  - recording of relevant findings on the body, including completeness, state of preservation, physical identification features, old injuries, deformities and natural disease
  - detailed description and assessment of injuries, both ante mortem and post mortem
  - reconstruction of skulls and other fragmented bones to try to confirm bullet and other damage
  - retrieval of bullets, bullet fragments and shrapnel
  - collection of samples for future DNA testing, normally a segment of right femur and, where available, a tooth; the samples were all doubled up
- Concurrent anthropological examination of the remains to try to establish age, sex and height, and to produce a detailed inventory of the parts present
- Detailed charting of the teeth, with radiography and photography as necessary
- Subsequent examination of the washed clothing, looking particularly for bullet holes or burning, with detailed description for identification purposes being left to the scenes of crime officers

### **Autopsy Reports**

An autopsy report was completed for each body and body part, the contents being the responsibility of the pathologist involved. He or she would have incorporated into it physical identification information supplied by the anthropologist, and frequently would have discussed the findings with colleagues, but the final conclusions and opinions expressed were nevertheless their own. The overall structure of each report was similar, as was the basic information included, although the descriptive style obviously varied from pathologist to pathologist, reflecting normal professional practice.

This summary report is based very largely on the findings from the individual autopsy reports, the names of the pathologists compiling them being appended at the end.

### **Limitations of the pathology evidence**

Before considering the pathology findings it is important to appreciate the difficulties and limitations involved in this type of work.

Primarily this has to do with the fact that these bodies had probably been in the ground for several years and so, not surprisingly, showed advanced stages of decomposition, many to the point of being completely reduced to a skeleton. This meant that assessment of injuries had to be done, at best, on discoloured, misshapen and disrupted tissues, and at worst, on the bony skeleton alone, a situation far removed from the normal practice of the forensic pathologist, where interpretation of injuries is based primarily on examination of skin wounds, damage to underlying tissues and injury to the internal organs.



The main difficulties presenting the mortuary team were thus as follows:

**1. *Deciding whether a particular finding was a genuine one or not***

With discoloured and broken down tissues, assessment of such things as bruising, wounds or bullet holes in the skin was extremely difficult and in many cases impossible, as the changes seen could have been part of the normal post mortem process. It was obvious from the pre-burial photographs referred to above that many of these bodies were already badly decomposed prior to burial, which included infestation by tissue destroying maggots.

**2. *Deciding whether injuries found had occurred before or after death***

Having identified damage to the skeleton or other tissues, the question then had to be asked as to whether this was an injury caused in life, or was instead something that had occurred after death.

Dealing with the latter, post mortem damage was certainly a consideration and was something that could have occurred in number of ways – in the process of handling the bodies and putting them into the graves in the first place, from the pressure of compacted soil or other bodies over the years, or from the final process in exhuming them. The last of these should have been obvious for what it was (fresh post mortem fractures have a distinct appearance), but the first two were possibilities that had to be very much borne in mind. Clues to post mortem fractures were recognition of the common patterns seen with such damage i.e. lines of conjoining fractures in the ribcage, non-disruptive fractures of the face and shoulder blades, and typical crushing fractures of the pelvis. In the end, where there was doubt, the benefit of such doubt was given to the injury being post mortem in nature. This may have resulted in genuine injuries being misinterpreted but this was clearly better than the alternative.

The second factor to consider was the knowledge that a fracture occurring at the time of death, or even in the days beforehand (before the healing process in the bone itself had had time to develop), could have looked exactly the same as a fracture occurring in the days or weeks after it. In the normal situation the two would be easily distinguishable by the associated bruising, swelling and bleeding which always accompany a living injury, but in decomposed bodies these things would be extremely difficult to see, and in skeletonized ones, impossible.

Strictly speaking therefore, in these decomposed and often incomplete bodies, with no soft tissues in which to see bruising, and no body cavities in which to find internal bleeding or disrupted organs, it was virtually impossible to be certain that any injury found necessarily occurred in life, and theoretically all of them could have occurred after death, even the very obvious gunshot injuries. While conscious of this theoretical difficulty, this report is nevertheless compiled on the assumption that the vast majority (if not all) of the gunshot and other specified injuries found in these bodies occurred in life and that they were, or contributed to, the cause of death. To assume otherwise would be to make any further analysis of the findings meaningless.

**3. *Determining the cause of a particular injury***

Having decided that an injury was a genuine one which had occurred in life, the task was then to determine what had caused it.

The vast majority of the injuries found in these bodies were gunshot injuries .... or at least, what were interpreted as such. This was on the basis of recognizing the typical fracture pattern caused by bullets, particularly high velocity bullets, in shattering bone. Reconstruction of the pieces frequently revealed typical entrance and exit holes, while bullets or bullet fragments were commonly recovered from the remains. Not all damage was so characteristic however, and there were varying levels of certainty in interpretation. In decreasing confidence these were:



- i. a typical bullet entrance or exit hole in the bone, with or without bullet fragments
- ii. no identifiable entrance hole but a typical fragmentation pattern with shattering and radiating fractures, again with or without bullets
- iii. an intact or fragmented bullet in the body, with or without damage to the bones or soft tissues

In applying these criteria, some genuine gunshot injuries may have been missed or labelled as 'can't tell'. At the same time, it had to be borne in mind firstly, that one bullet can damage more than one part of the body, necessitating some caution in estimating overall numbers, but secondly, and in contrast, that bullets can pass through a body without damaging bone e.g. the abdomen, and that such shots would have been missed in these remains.

Not all injuries were necessarily firearm injuries, and the possibility of shrapnel (from an explosive blast) or blunt force trauma (from falls, blows etc.) also had to be considered. The latter, which were far less destructive than bullet injuries but which again would normally have had bruising and bleeding around them, were all the more difficult to tell apart from the post mortem injuries already referred to.

#### **4. *Deciding on the significance of the injuries found and whether they were the cause of death***

As explained earlier, the extent of decomposition of the bodies meant that usually the only remaining evidence of trauma was in the skeleton.

In this respect, it has to be realized that it is not the damage to the bones themselves that kills people, but rather the associated damage to surrounding tissues and internal organs. With most of the latter missing in these cases, it was therefore seldom possible to strictly prove a precise cause of death, only to imply it. This was not an unreasonable implication however, as common sense dictates that a bullet passing through the skull will also pass through the brain, and that a bullet striking the ribs or spine will almost certainly also damage the heart, lungs or major vessels in the chest. Similarly, extensive blunt force fractures of the skull or the ribcage would be expected to be associated with damage to the brain, lungs or abdominal organs. Isolated injuries to the limbs however, even gunshot ones, could not always be assumed to have been fatal.

The assumption of a cause of death was not made lightly, and in a significant number of cases from this grave-site the cause was left as unascertained. This would have been because the pathologist considered that those injuries found were not necessarily fatal, or because there were no significant injuries at all, and no other findings. It may have been that death was due to trauma affecting soft tissues alone without damaging the skeleton - for example, gunshot injuries to the abdomen or thighs, knife wounds, burning, asphyxia etc - or that the person had died of natural causes, from heart disease, pneumonia etc, all evidence of which would have long since disappeared.

For this site in particular, where many of the bodies in Graves 2 and 3 appeared to have been people who had died in hospital, and where there were few remaining findings, the assumption had to be that the vast majority of them had died of natural causes.

Bearing in mind the above difficulties and limitations, the pathology findings from the four separate sites at Knin cemetery can now be discussed.



## Grave 1 - KN01

### **Background**

This was by far the largest of the grave sites dealt with. The pre-burial photographs suggested that the bodies within it were a mixture of military and civilian individuals, that many of them had major injuries, and that the majority were already showing signs of decomposition prior to burial.

### **General features of the bodies examined**

KN01 contained a total of **186 bodies** and **31 body parts**, the latter being dealt with later.

#### ***Age and sex***

Of the 186 bodies, **153** (82%) were **men**, and **33** (18%) were **women**. As estimated from anthropology examination, the ages ranged potentially from **17** to **100**, with the majority between 35 and 60. There were five men below the age of 30, but no children.

#### ***Military or civilian?***

From examination of the clothing and possessions, 40 of the men in the grave i.e. just over a quarter (26%) appeared to have been soldiers, including all five of the younger ones referred to above. There was possible military clothing on a further 11. Live rounds were occasionally found in pockets, and the field team had removed a hand grenade from the pocket of one man, incidentally not identified as a soldier. None of the people in this grave appeared to be hospital patients, in the way that many of those in the other graves were, although there was a surgically amputated right lower leg lying in one man's body bag (213B).

#### ***Clothing and possessions***

Whether military or otherwise, recognizable clothing was still present in the vast majority of victims, ranging from several layers to just occasional items, but in a few cases there was nothing. Evidence of burning was sometimes present, including in some of the soldiers, while six bodies (mostly women) had blankets around them and one man was wrapped in a hospital sheet (KN01 410B). A variety of personal possessions were recovered which will be documented in other reports, but they included a two way radio, first aid kit, military equipment and identification documents.

#### ***Physical identifying features, disability and natural disease***

In terms of natural disease and physical disabilities, the only remaining evidence of this in the majority of cases was what was in the skeleton. Arthritic changes in the spine and elsewhere were common, evidence of previous surgery was present in four, and no less than 17% had old fractures, most commonly of the ribs but also the limbs, including three with metal pins or plates in their legs. In those with surviving soft tissues, gallstones and coronary artery disease were occasional findings.

#### ***Preservation of the remains***

The state of these bodies ranged from complete or partial skeletonization of the majority, through some with solid fatty material adherent to the bones, to those in which there was a remarkable degree of preservation, with intact dry leathery skin, surviving body cavities and still recognizable internal organs. That there was such a range of post mortem tissue loss was probably a reflection of local influences in the grave and of the fact that many bodies were already badly decomposed before being buried. Insect pupae (from maggots) was a common finding in the clothing, indicative of fly colonisation prior to burial due to the bodies having been left out in the open or wherever.; this was something which was already very visible in some of the pre-burial photographs.



## Blindfolds and ligatures

With only occasional exceptions, none of the bodies had any convincing blindfold around the eyes, or ligatures around the wrists or ankles.

The exceptions were:

- A middle aged lady (327B) who had a piece of blue cloth tied loosely over the eyes, and two lengths of rope looped irregularly around her chest and arms. Whether these represented true bindings or were items that had been applied after death, perhaps to ease handling, is unclear. As it happens, no cause of death could be determined.
- A soldier (329B) who had the loop of a handcuff around his right wrist.
- Another woman (406B) who had a rope around her ankles, although again possibly something applied after death.

## Injuries

The majority of people in this grave had injuries of some sort. Most had been shot, a few appeared to have blast injuries, and a number had evidence of blunt force trauma or knife wounds. This was quite apart from the post mortem damage to the bones present in many individuals.

There was however, a substantial number (19%) in which no provable genuine injuries could be identified, and where the cause of death had to remain unascertained.

### 1. Gunshot injuries

Of the **186** people in the grave, **143** (77%) had definite gunshot injuries, and there were *possible* gunshot injuries in a further 6. Of the definite injuries, the following observations can be made:

#### (i) Number of shots

Many people had been shot just the once but a greater number had multiple shots, one man as many as 14 (331B). The total number of shots estimated to have been fired was 443, giving an average of 3 per person. The frequency is shown in the table below:

number of shots fired at any one individual	number of individuals with that number of shots
1	37
2	35
3	20
4	27
5	7
6	9
7 or more	8

These were very much minimal estimates however, bearing in mind that the assessment of bullet damage in most cases was based solely on what was visible in the skeleton and that bullets passing through soft tissue only would have been missed; also, that some damage, while suspected of being caused by a bullet, was at the lower end of the certainty range. At the same time, it had to be borne in mind that a single bullet could have been responsible for damage to more than one part of the body e.g. a bullet passing through the chest could then have passed through one of the arms. Overall, the number of shots fired at these individuals was probably an underestimate.



**(ii) Parts of the body injured and direction of fire**

For the purposes of this report, detailed analysis of specific part of the body injured and the direction of fire, was not analysed in every case, but for the 84 cases with gunshot injuries in which it was (those in Annex A - see later), the distribution of shots was as follows:

Of the **250** shots found in these 84 individuals: **71** (28%) were to the head  
**112** (45%) were to the trunk  
**26** (10%) were to the arms  
**41** (17%) were to the legs

It is difficult to read too much into these figures. With the trunk forming the largest surface area of the body it is perhaps not surprising that this was the commonest part struck. It is perhaps worth noting however, that in 17 out of the 84 people the only injury was a single gunshot injury to the head.

Often when a bullet passes through bone it leaves distinctive bevelling patterns on the entrance and exit surfaces from which the direction of fire can be determined. This is particularly so with the skull but it can also be seen in other bones such as the ribs and the pelvis. Just as often however, the degree of fragmentation of the bone is such that assessment of direction is virtually impossible, particularly in the limbs.

For what it is worth, in the 84 cases analysed in detail, the direction of fire of the 183 shots to the head and trunk were as follows:

<b>Direction of fire</b>	<b>head</b>	<b>trunk</b>
<i>shots from behind</i>	<b>22</b>	<b>40</b>
“ “ <i>the side</i>	<b>15</b>	<b>6</b>
“ “ <i>in front</i>	<b>14</b>	<b>27</b>
“ “ <i>the top</i>	<b>5</b>	<b>-</b>
<i>direction unknown</i>	<b>15</b>	<b>39</b>

For the head, where it could be determined, the bulk of shots were to the back or side, but analysis of direction of fire to the trunk is largely meaningless because of the number of unknowns.

**(iii) Distance of fire**

Estimating distance of fire of gunshot injuries is primarily based on looking for burning and soot staining on the skin, the presence of either of which would indicate close-range shots. In decomposed remains such as these, particularly bearing in mind the possibility of contamination from other bodies in the grave, no such analysis was possible.

The position of the entrance hole of some of the single shots to the head however – at the back in the midline or behind the ear – could be interpreted as them being targeted close-range shots.

**(iv) Weapons and ammunition used**

Looking at all the cases in the grave, the extent of the damage to the bones and the characteristic fragmentation pattern present indicated the use of **high velocity weapons**. This was confirmed by the finding, in many of the bodies, of sharp-pointed, copper-jacketed bullets of 7.62mm diameter, some still largely undamaged and intact, others showing varying degrees of fragmentation.

In two cases (288B and 317B) a **handgun** had been used. In the former - a soldier - there were two entrance holes behind his left ear, two handgun bullets within the remains, and no injuries anywhere else. The other case was a woman, where the entrance wound was at the bridge of the nose.



In one man (380B) - again a soldier - a **shotgun** had been used. He had been shot twice from behind, once to the back of the head and shoulders from above and to the right, and once to the back of the legs. The distribution and penetration of the pellets within the body suggested fairly close-range shots.

## 2. Blast injuries

What were interpreted as blast injuries i.e. damage caused by explosive devices, were seen in a number of bodies. Such damage was suggested by the nature of the destruction to a particular part of the body, coupled often with the finding of typical shrapnel fragments in the remains.

Blast injuries were seen in cases 385, 386, 392, 396 and 426 - all of them soldiers - and in 406 and possibly 422, both of whom were women. Case 274 may have been a further example but there was less certainty here. In none of these cases were there any additional gunshot injuries.

## 3. Blunt force trauma

While the bulk of the injuries seen in these bodies was damage from bullets or explosive devices, from time to time blunt force trauma was also seen i.e. fractures suggestive of blows from a weapon, an injury from some other heavy object, kicking, or possibly simply falling. Such injuries showed up in the skeleton as undisplaced linear fractures in the skull, ribs or wherever, different from the fragmentation and bone loss characteristic of gunshot damage. These fractures were more difficult than gunshot injuries to be distinguished from post mortem trauma, but with the latter still very much in mind, there were nevertheless instances in which genuine blunt force injuries were present and, in one case, it was considered as the cause of death.

A few examples are given below:

- A man, possibly military, who had been shot once through the head from side to side but who also had fractured ribs on both sides of the chest suggestive of blows or kicking, plus a fracture of the upper end of his right shin bone suggestive of a blow from a heavy weapon, probably one with a relatively sharp edge (213B)
- A middle aged man who died from two gunshot injuries to the back of the chest but who also had a depressed fracture of the skull behind the right eye suggestive of a blow from a weapon, possibly the butt of a gun (283B)
- A man who appeared to have been shot through the front of the head and through the front of the right leg, who had symmetrical fractures of the middle third of each femur, likely to have been caused either by a heavy fall on to this part of the body or being struck perhaps by a vehicle. He also had fractured ribs at the back of the chest (432B)

## 4. Knife wounds

In two consecutive bodies there were narrow slit-like defects in the skull very suggestive of a knife or a bayonet having been thrust into the head.

- A man with military clothing who had been shot twice in the trunk, probably from behind, and who also had a knife-like wound on the lower part of the forehead above the bridge of the nose, penetrating into the skull sinus behind (429B)
- A man, this time not wearing obvious military clothing, with three gunshot injuries to the left side of his body - to the shoulder, lower leg and heel - none of them necessarily immediately fatal. He probably died instead from an additional penetrating knife wound (presumably a bayonet) to the left side of his head which had clearly penetrated internally (430B)



## 5. Post mortem injuries

In addition to injuries which were considered to have occurred in life, whether gunshot or otherwise, many of the bodies had additional skeletal fractures which were felt most likely to have been post mortem in nature, for the reasons discussed earlier. Mostly these were fractures of the more delicate parts of the skeleton – the bones of the face, ribs, shoulder blades (scapulae), the front of the pelvis, and the fibula in the lower leg.

Quite apart from these injuries there was also burning of some of the bodies which again almost certainly occurred after death. It was present in 10 cases, being visible on either the clothing or the bones, or both. The burning affected the exposed surfaces of fractured bone, indicating that it came after the fracture rather than before it. Possible causes would be fire damage to clothing in an explosive blast, or damage caused to a body as it remained after death in a building on fire. Burning to a person in life would be almost impossible to detect in any of these cases.

## Cause of death

The causes of death for the 186 people in KNO1 are listed below. They are grouped into regional categories, with the trunk encompassing the chest, abdomen and pelvis, and the head including the neck. Where it was felt that injuries to more than one region contributed to the death (e.g. head and trunk) the cause is listed as multiple gunshot injuries.

<b>Cause of death for the 186 people in KN01</b>	
<b><i>Gunshot injuries to head</i></b>	<b>60</b>
<b><i>Gunshot injuries to trunk</i></b>	<b>44</b>
<b><i>Multiple gunshot injuries</i></b>	<b>37</b>
<b><i>Gunshot injuries to legs</i></b>	<b>2</b>
<b><i>Blast injuries</i></b>	<b>6</b>
<b><i>Blunt force trauma</i></b>	<b>1</b>
<b><i>Stab wound of head</i></b>	<b>1</b>
<b><i>Unascertained</i></b>	<b>35</b>

To some extent the precise wording of the cause of death is somewhat artificial and often merely reflects what was the main fatal injury. Thus, in someone who had been shot in the head but who also had gunshot injuries elsewhere, perhaps in the trunk or the legs, the cause of death may have been given just as gunshot injury to the head because that injury would have been the necessarily and rapidly fatal one.

The wording used was thus rather subjective, varying from pathologist to pathologist. Some preferred to restrict the cause to the principal fatal injury, as just discussed, while others were more inclusive and listed all the main injuries present.

The important observation is that of the **186** people in the KN01 grave-site, **143** (77%) died from gunshot injuries, and a further **6** (3%) from blast injuries from an explosive device. Just as important however, is the observation that in **35** cases (19%) no cause of death could be established. These cases should now be discussed further.



## Unascertained causes of death

The reasons for having to give the cause of death as 'Unascertained' have already been discussed in the section on the limitations of the pathology evidence; for example, gunshot or other injuries not considered to be necessarily fatal, or no significant injuries at all. The latter was very much the prevailing reason here.

As has been emphasised repeatedly, in dealing with bodies that have been in the ground probably for several years, where the soft tissues are either completely missing or discoloured, degenerate and distorted, the autopsy examination is necessarily limited. Injuries affecting the soft tissues only – some gunshot injuries, stab wounds, other cutting injuries, or blunt force trauma to the abdomen – would no longer be visible or suspected unless there was accompanying damage to the bones. Similarly, causes of death such as asphyxia (restriction of breathing by mechanical means), drowning, smoke inhalation from being in a fire, or intoxication would leave no trace in skeletal remains. Nor, importantly to add, would natural disease, such as heart disease, pneumonia or a stroke.

There may be evidence from other sources to suggest what may have been the cause of death in some of these people, but the autopsy findings on their own can add little. It has to be remembered also that these were all bodies from a 'normal' cemetery and so may have been there from before the incident being investigated.

One or two observations about the 35 cases were that:

- 23 were male, and 12 female
- Two were wearing military clothing, as were possibly another two
- One of them (434B), a woman aged 25-35 had evidence of fairly recent neurosurgery (burrhole), while another (410B), a man aged 35-55 was the one referred to previously as having been wrapped in a hospital sheet. The lady with the cloth around her eyes (327B), also already mentioned, was a further unascertained case.

## Body parts

Mention should be made of the additional body parts recovered from the KN01 grave, referred to as BPs.

There were 31 of these in this grave-site, or at least this was the final number after separations and re-associations in the mortuary. They were of three types:

- 'Genuine' parts of bodies disarticulated from the main bodies, usually parts of limbs or fragments of skulls, and not able to be associated. There were 25 of these BPs and gunshot injuries were found in five of them.
- Collections of isolated bones from the general grave area, some possibly belonging to these bodies, some possibly pre-dating their burial there. There were 5 such BPs.
- A single surgical amputation specimen – a right lower leg in green surgical cloth, found with body 213B and given the separate number 494BP

## Specific cases

I have been provided with a list of cases (**Annex A**), which puts names to the ICTY and burial numbering systems used up until now. This list, which covers 114 of the KN01 cases is now inserted here, with addition of the cause of death for each individual, and any other relevant observation. More detailed information on any individual case is, of course, available in the original autopsy report. The causes of death as listed here, are somewhat standardised, and while this may differ in precise terminology from what is in the post mortem report, it makes for ease of comparison of the findings.



**Annex A cases for KN01**

ICTY no.	Police ID no.	Name of victim	Cause of death	Min. no of shots	Observations
202B	495	POPOVIĆ Mirko	Gunshot injuries trunk	2	
204B	504	KRNETA Stevan	Blunt trauma chest	0	
212B	426	PETKO Milka	Gunshot injuries chest	2	
214B	262	MIRKOVIĆ Dragan	Gunshot injuries head and trunk	4	
223B	505	JELIĆ Nikola	Gunshot injury face	1	
235B	488	BJELIĆ Marija (Mara)	Gunshot injuries legs	2	
236B	491	DAMJANOVIĆ Djuka	Gunshot injury head	4	
237B	492	VUKOVIĆ Boško	Gunshot injury head	5	<i>bandage on thigh</i>
240B	542	VIDOVIĆ Stevan	Gunshot injury neck	1	
241B	539	GRUBOR Jovo	Gunshot injuries trunk	6	<i>? blunt force to jaw</i>
242B	540	GRUBOR Mika	Gunshot injuries chest	2	
243B	538	GRUBOR Marija	Gunshot injuries head and trunk	4	<i>burning</i>
244B	541	KARANOVIĆ Đuro	Gunshot injuries chest	5	
245B	537	GRUBOR Miloš	Gunshot injuries head and chest	3	
246B	545	BORAK Milka	Gunshot injury head	1	
247B	535	DMITROVIĆ Jovo	Gunshot injury head	2	
248B	509	DMITROVIĆ Stevo	Gunshot injury chest	2	
249B	506	NN (ID No. 506)	Gunshot injury head	1	
250B	507	DMITROVIĆ Sava	Unascertained	0	
251B	499	NN (ID No. 499)	Unascertained	0	
252B	496	KOVAČEVIĆ Ljubomir	Unascertained	0	
253B	498	DAMJANIĆ Lazar (invalid)	Gunshot injuries trunk	6	
254B	497	BUAČ Dušan	Gunshot injuries head and trunk	5	
255B	489	VUKOVIĆ Mika	Gunshot injuries head and chest	2	
256B	490	VUKOVIĆ Tanasije	Gunshot injuries head	3	
257B	494	DAMJANOVIĆ Dušan	Gunshot injuries chest	4	
258B	493	BJELIĆ Petar	Gunshot injuries trunk	2	
259B	487	NN (ID No. 487)	Unascertained	0	
261B	595	NN (ID No. 595)	Gunshot injuries head and trunk	4	<i>previous partial autopsy</i>
267B	543	MAŽIBRADA Joka	Gunshot injury chest	1	
269B	586	SUČEVIĆ Stevan	Gunshot injury head	1	<i>burning</i>
272B	556	BABIĆ Ruža	Gunshot injuries trunk	2	
273B	558	MANOJLOVIĆ Ružica	Gunshot injuries chest	4	<i>burning</i>
274B	585	MANOJLOVIĆ Stevan	Unascertained	*	<i>burning</i>
275B	587	DRAGIŠIĆ Milka	Gunshot injury head	5	
276B	594	CRNOGORAC Ilinka	Gunshot injuries head and chest	2	
277B	599	OPAČIĆ Jelka	Gunshot injuries head, trunk, limbs	6	
278B	601	KRIČKOVIĆ Rajko	Gunshot injuries head and trunk	2	
281B	607	KABLAR Zorka	Unascertained	*	
282B	608	NN (ID No. 608)	Unascertained	0	
283B	609	NN (ID No. 609)	Gunshot injuries chest	2	<i>blunt force to head</i>
284B	614	NN (ID No. 614)	Gunshot injury head	3	
285B	551	MANDIĆ Ljeposava	Gunshot injuries head and chest	4	
289B	591	RADUJKO Nikola	Gunshot injuries trunk	3	
290B	590	RADUJKO Maša	Gunshot injuries head and chest	2	
291B	589	RADINOVIĆ-LUKIĆ Branko	Gunshot injuries head and chest	2	
292B	593	PANIĆ Nikica (invalid)	Unascertained	0	
293B	596	VUKIĆ Stevan	Unascertained	0	
294B	597	NN (ID No. 597)	Gunshot injuries head	1	
295B	598	SMILJANIĆ Radomir	Gunshot injuries trunk	3	
297B	605	PETKO Ilija	Gunshot injuries chest	3	
298B	604	RAŠUO Dmitar	Gunshot injury chest	1	
299B	606	GRUBNIĆ Tode	Gunshot injury head	3	
300B	610	ŠTRBAC Mirko	Gunshot injuries head and chest	4	
301B	611	NN (ID No. 611)	Gunshot injuries chest	2	



302B	612	KOVAČEVIĆ Bogdan	Unascertained	0	
303B	613	VUJNOVIĆ Stevo	Unascertained	0	? machete injury head
304B	615	ŽUNIĆ-SUDAR Durdija	Unascertained	0	
306B	503	DONDUR Ika	Gunshot injury chest	1	
307B	516	ĐUKIĆ Dušan	Gunshot injury head	1	
308B	517	BERIĆ Špiro	Gunshot injury head	2	
309B	518	BERIĆ Jovo	Gunshot injury chest	1	
310B	519	BERIĆ Jovan	Gunshot injury head	1	
311B	520	BERIĆ Radivoj	Gunshot injury head	1	
312B	521	BERIĆ Marija	Gunshot injury neck	2	
313B	522	BERIĆ Milka	Gunshot injuries trunk	2	
314B	523	BERIĆ Marko	Gunshot injuries trunk	6	
315B	524	BERIĆ (POKRAJAC) Mirko	Gunshot injury head	1	
316B	550	BORAK Marija	Unascertained	0	
317B	645	JARIĆ Stoja	Gunshot injury head	1	handgun
320B	584	MIRKOVIĆ Jandrija (Jandre)	Gunshot injuries head and trunk	3	
321B	462	MILIVOJEVIĆ Sava	Gunshot injuries trunk	5	
322B	461	GAGIĆ Petar	Gunshot injuries neck and trunk	6	
323B	511	MRDALJ Jovan (Jovo)	Unascertained	0	
324B	512	BALIĆ Milan	Gunshot injury trunk	1	
325B	455	GRULOVIĆ Ilija	Gunshot injury head	4	
326B	456	NN (ID No. 456)	Gunshot injuries head and trunk	10	
327B	457	KANAZIR Jeka	Unascertained	0	
328B	458	RAŠIĆ Sava	Unascertained	0	
329B	459	PLAVŠA Jovica	Gunshot injuries head and chest	2	
331B	527	LALIĆ Veljko	Gunshot injuries head and trunk	14	
332B	643	STARČEVIĆ Slavko	Gunshot injuries chest	3	
361B	474	GRUBIĆ Nevenka	Unascertained	0	
362B	473	NN (ID No. 473)	Gunshot injury head	1	
365B	470	ŠLJIVAR Milica (invalid)	Gunshot injury head	1	
366B	429	JERKOVIĆ Jovan	Gunshot injury pelvis	1	
368B	427	NN (ID No. 427)	Unascertained	0	
369B	425	NN (ID No. 425)	Gunshot injury neck	1	
374B	420	BALJAK Stevan	Gunshot injury head	3	
376B	409	MILANKOVIĆ Anka	Unascertained	0	
377B	408	MILANKOVIĆ Lazo	Gunshot injury head	1	
384B	152	POTKONJAK Nikola	Unascertained	0	
390B	259	DUJKOVIĆ Nenad	Gunshot injuries head and neck	4	
394B	253	NN (ID No. 253)	Gunshot injury head	2	
395B	252	SINOBAD Ratko	Gunshot injury head	1	
397B	250	ŠARAC Ilija	Gunshot injuries head and trunk	6	
408B	481	RADIŠA Mirko	Gunshot injuries head	2	
410B	484	VUJASIN Jovo	Unascertained	0	
412B	421	MAČAK Đuro	Gunshot injury neck	2	
415B	423	TIŠMA Momčilo	Gunshot injury head	2	
416B	418	GNJATOVIĆ Mile	Gunshot injuries head	6	
417B	424	VEČERINA Stevo	Gunshot injuries head	4	
419B	411	NN (ID No. 411)	Unascertained	0	
420B	407	MILIVOJEVIĆ Ilija	Unascertained	0	
421B	406	MILIVOJEVIĆ Mile	Unascertained	0	
422B	402	TOMIĆ Ankica	Unascertained	0	? blast injury trunk
431B	269	BERIĆ Valerijan	Gunshot injury neck	3	
432B	?270	ĐAPIĆ Ljubomir	Gunshot injury head	2	
434B	159	OGNJENOVIĆ Zagorka	Unascertained	0	
435B	256	JARAMAZ Bogdan	Gunshot injuries chest	12	
437B	171	BJELOBRK Aleksandar	Unascertained	0	
440B	242	RADINOVIĆ- LONČINA Nikola	Unascertained	0	
442B	170	MIRKOVIĆ Marko	Gunshot injury chest	1	
443B	158	BESEVIĆ Sava	Unascertained	0	
445BP	422	NN(ID No.422)	Unascertained	0	right hand ? from 411BP



## Grave 2 - KN02

### Background

Grave 2 was a much smaller site than Grave 1, and we were informed that it consisted of a string of graves near the perimeter wall of the cemetery, some of the graves individual and some multiple. A total of 41 bodies were recovered from it, 29 in coffins and the remainder in body bags. Along with the bodies there were a number of unrelated surgical amputation specimens and foetal remains.

### General features of the bodies examined

By the completion of the mortuary work, the number of bodies attributed to the KN02 grave was **40**. The difference of 1 from the Field Team was because one of their 41 was a whole foetus which, in the mortuary, for organization reasons, was included with the body parts. Various other unassociated items were found with the main bodies, mainly amputation specimens, and so, after these had been separated out and given individual body part numbers, the final tally from this grave-site was **40 bodies** and **12 body parts**. The body parts will be dealt with further at the end but general observations about the 40 bodies are as follows:

#### *Age, sex, natural disease and old injuries etc.*

- Of the 40 bodies **16** (40%) were **male** and **24** (60%) were **female**.
- As estimated from anthropology examination of the skeleton, their ages ranged potentially from **35 to 90**, the majority being in the middle aged to elderly bracket.
- Arthritis was a common finding, as were old fractures, mainly the ribs but occasionally limb bones. One woman may have had congenital problems with her hips and consequent walking difficulties in life (116B), while another elderly woman had signs of past neurosurgery and old leg fractures (109B).

#### *Clothing, wrappings, and degree of preservation*

- Only a minority (12) of these people were wearing normal clothing, none of it military; the majority had none, the bodies being instead wrapped in hospital sheets or showing other signs of the person having died in hospital, with their body 'prepared' after death (bandages around the head and the ankles tied together). This was the case for at least 19 people i.e. almost 50%.
- The bodies showed varying degrees of preservation, the majority being completely reduced to a skeleton, or at least partly so, with only some firm fatty tissue still adherent to the bones. One woman's body was however, remarkably intact, showing mummification and preservation of internal organs to such an extent that natural disease could still be identified in the heart (093B).

### Injuries and cause of death

The bodies in this grave were striking by the lack of injuries found, and by the fact that in the vast majority, the cause of death had to remain as unascertained. The findings can be summarised as follows:

- Gunshot injuries were present in only two cases:
  - 077B** – A man aged between 40 and 60, still in clothing, with two gunshot injuries to his legs, one of them passing through both thighs and the other injuring the left lower leg. These were regarded as potentially fatal injuries and the likely cause of death.
  - 097B** – A man, 45 to 55, wrapped in a hospital sheet and wearing a surgical gown, with at least two gunshot injuries to his pelvis, and one to each arm. Death was attributed to the former.



- Three people had evidence of fresh fractures – a middle aged woman with a fractured femur (095B); another woman with fractured ribs (108B); and an elderly lady with broken bones in her foot (109B). Three others had healing fractures – an elderly lady with healing fractures of ribs, breast bone and femur (083B); a man with a fracture of the neck of his left femur (105B); and another man with healing rib fractures (110B).

While these injuries may have been the reason for the person having perhaps been in hospital or lying disabled elsewhere, and while complications from the injuries may have led to their death, the latter could in no way be proved and the cause of death still had to be given as unascertained.

- No injuries were found in any of the other cases apart from what was attributed to post mortem damage. There were also no other findings, with the exception of the lady whose body was so well preserved as described above (093B) - she had identifiable coronary artery disease in the heart as a potential cause of death but not one that could be proved. The other people in the grave may well also have had, and died from, natural disease, now no longer visible in skeletonized remains.

The general impression with the bodies in this grave was that they were mainly people who had died in hospital or in the community from natural disease or from complications of accidental trauma. The only exceptions to this were the two men dying from gunshot injuries. For completeness sake, the causes of death are listed below.

#### **Cause of death for the 40 people in KN02**

***Gunshot injury 2***

***Unascertained 38***

#### **Body parts**

As already mentioned, in addition to the main bodies in this grave there were various parts of bodies, some of which appeared to have had little or nothing to do with the people buried and to have been items simply placed in the grave when it was still open. A number of them did however, show injuries.

There were 12 of these body parts and they comprised:

- 8 surgically amputated legs, amputated at varying levels from mid-thigh downwards and wrapped in green surgical cloth. One of these (125BP) showed what appeared to be a blast injury of the foot, and another two (043BP and 124BP) had injuries which could either have been from gunshot or blast. The other five legs had no such injuries and had probably been amputated for natural disease.
- A complete but skeletonized left lower leg and foot, possibly in a surgical cloth, with a fracture of one of the foot bones, possibly caused by a fragment of bullet or shrapnel (039BP)
- Foetal remains – the bodies of two fetuses:
  - partial remains, 4-5 months gestation, still with umbilical clip (054BP)
  - complete body, probably with placenta, estimated 5½ months gestation (091B)
- General isolated bones from the grave area, clearly from more than one individual, some or none of which may have been from the 40 bodies examined (035BP)

#### **Specific cases**

Cases from Annex A are listed overleaf in the same way as for KN01



**Annex A cases for KN02**

<b>ICTY no.</b>	<b>Police ID no.</b>	<b>Name of victim</b>	<b>Cause of death</b>	<b>Min. no of shots</b>	<b>Observations</b>
051B		SIMIĆ Milica	Unascertained	-	<i>fracture right lower leg</i>
077B		DRAGIČEVIĆ Milan (Mile)	Gunshot injuries legs	2	
092B		ŠUPELJAK Mirko	Unascertained	-	
095B	27	KANAZIR Ljubica	Unascertained	-	<i>fracture left femur</i>
098B	28	PRIBOJAN Darinka	Unascertained	-	<i>? hospital patient</i>
100B	29	MILJEVIĆ Ilija	Unascertained	-	



## **Grave 3 – KN03**

### **Background**

Grave 3 was said to have been a complex site, with four sub-locations described by the field team:

- **Sub-location 1**  
A mass grave containing the bodies of 19 people, together with surgical specimens, foetal remains and general cemetery paraphernalia. Eight of the bodies were in body bags but the others were not.
- **Sub-location 2**  
A narrow grave with the bodies of 5 people, including a newborn infant
- **Sub-location 3**  
Two graves, together containing the bodies of 6 people (four in one and two in the other), each in a coffin, each with a glass vial in which was a piece of paper with a name on it, and one buried with an unrelated amputated limb.
- **Sub-location 4**  
A shallow grave containing the bodies of 11 people.

In the field, this made a total of 41 bodies from KN03. In the mortuary, it was not entirely obvious to us which bodies came from which particular sub-location, and so, in this report, they are all dealt with together.

### **General features of the bodies examined**

With the usual separation of unrelated body parts in the mortuary, and allocation of foetal remains to the body parts list, the final totals for KN03 were **40 bodies** and **48 body parts**.

#### ***Age, sex, natural disease and old injuries etc.***

- Of the 40 bodies from the four sub-locations, **37 (93%)** were **men** and only **3 (7%)** were **women**.
- From anthropology examination of the remains the ages ranged potentially from **17** to **95**. The majority of people were middle aged or elderly, but there was one young person, a soldier, estimated to be between 17 and 21 years old (144B)
- In terms of natural disease and old injuries, there were signs of arthritis in some, a few with old fractures (skull, ribs, limb bones), and one man with evidence of past neurosurgery (old burrhole in skull)

#### ***Clothing (military and civilian) and other items***

- 15 men were wearing what appeared to be military clothing, as were possibly another three. At the grave-site grenades and live round were removed from the flak jacket of one of them (114B) and, in the mortuary, two AK47 cartridges were found in the pocket of another (106B).
- 10 bodies had no remaining clothing. Six of these people did however have small glass vials with the remains, in each of which was a piece of paper with a name. They were presumably the six bodies described in sub-location 3 (076B, 077B, 081B, 084B, 088B and 091B). Also found with the last of these (091B) was a medical intravenous cannula, he being the only one of the six with gunshot injuries and with a cause of death. One other man (156B) was found with a tracheostomy tube and a urinary catheter, with the implication that he too had been a hospital patient.

#### ***Degree of preservation***

As in the other grave-sites, there were varying degrees of preservation amongst these bodies, the majority completely skeletonized but some with substantial amounts of tissue still adherent.



## Injuries

Gunshot injuries were found in **28** (70%) of the bodies. There were no obvious blast injuries and no convincing blunt force trauma. There was however, the usual post mortem damage in several cases – fractures of the face, ribs, scapulae, pelvis and limb bones – not further described in the report.

### Gunshot injuries

Of the 28 people in the grave with gunshot injuries, the following observations can be made:

#### *Number of shots fired*

- A minimum of 93 separate bullet injuries were identified, with a range of 1 to 10 shots per person.
- Nine people appeared to have suffered just a single gunshot injury, six had a minimum of 2 shots, two had 3 shots, and the remainder had 4 or more up to a maximum of 10. The man who had been shot 10 times was a soldier (149B) but not all the military victims had been shot multiple times.

#### *Part of the body injured and direction of fire*

- Of the 93 bullet injuries detected, 19 (20%) were to the head, 47 (51%) were to the trunk, 8 (9%) were to the arms, and 19 (20%) were to the legs, a distribution not surprising given the relative surface area of the different regions.
- In terms of direction of fire, this was variable i.e. in some people the shots struck them from in front, in others from the back, but given the relatively small the number of cases overall and the number in which direction could not be determined, overall comment on this observation is somewhat meaningless.

#### *Weapons and ammunition*

- In 26 of the 28 men who had been shot, the damage to the skeleton was typical of the use of high velocity weapons, this being backed up by the frequent finding of appropriate bullets or fragments in the bodies
- In two men (147B and 151B) round nosed pistol bullets were found in the remains, suggesting the use of a handgun, although both men also had injuries typical of high velocity weapons, suggesting that both types of weapon had been used.
- Two men (121B and 124B) had been shot, not by a high velocity weapon or by a pistol, but by a shotgun. The former had been shot twice in the back of the trunk, and the latter shot once in the back of the head. Typical pellets and, in the first man, a wad, were recovered from both bodies.

## Cause of death

With the observations made in the KN01 section regarding terminology in giving a cause of death applying equally here, the causes of death for KN03 are listed below.

#### **Cause of death for the 40 people in KN03**

<b><i>Gunshot injuries to trunk</i></b>	<b>11</b>
<b><i>Gunshot injuries to head</i></b>	<b>8</b>
<b><i>Multiple gunshot injuries</i></b>	<b>8</b>
<b><i>Gunshot injuries to legs</i></b>	<b>1</b>
<b><i>Unascertained</i></b>	<b>12</b>

The main observation here is that 28 (70%) of the people in this grave-site died from gunshot injuries, including all those wearing military clothing.

That does however, leave 12 in whom no cause of death could be found.



### Unascertained causes

Of the 12 unascertained cases, 9 of them had no remaining clothing, and so there must be a likelihood that most, if not all, were hospital patients who had died of natural causes. The other three were different (117B, 125B and 127B) and it is not possible to say whether they died of natural causes, or from trauma of the sort discussed under KN01, no longer detectable in such decomposed remains.

### Body parts

This grave contained a substantial number (**48**) of what were labelled 'body parts' in addition to the main bodies. As in the other graves they were a mixture of items, now listed below:

- **18** isolated small parts of bodies or bony fragments, at least some of which may have been from the main bodies. They consisted mainly of parts of limbs or fragments of shattered skull. One of the parts (048BP) included military clothing and the fragments of skull present suggested a gunshot injury to the head. Potential gunshot injuries were found in a further five cases, while two others (064BP and 159BP) comprised two left ankles and feet with blast injuries suggestive of having been parts blown off perhaps by landmines.
- **10** amputated limbs within surgical cloths - eight legs amputated at varying levels, and two forearm bones, all showing evidence of bullet or shrapnel damage and presumably amputated for this reason.
- **4** additional amputated legs, again at varying levels, with no significant injuries and presumably amputated for medical reasons i.e. natural disease.
- **3** fetuses (033B, 163B and 166B), estimated to be of 6-8 months, 5-6 months, and 7 months gestation respectively, two of them wrapped in surgical cloths and all three with plastic umbilical clips still attached.
- **13** 'general bones' comprising collections of old and often fragmented bones from the general grave area, clearly from several different people, and most likely to be remains which had been in the cemetery prior to the current burials.

Thus, with these body parts, probably only a very few had any connection with the bodies being exhumed, and served only to confuse the other findings.

### Specific cases

Cases from KN03 listed in Annex A are detailed on the next page.



**Annex A cases for KN03**

ICTY no.	Police ID no.	Name of victim	Cause of death	Min. no of shots	Observations
076B		KOVRILJA Pera	Unascertained	0	
077B		ČURUVIJA Soka	Unascertained	0	
081B		OPAIĆ Ilija	Unascertained	0	
091B		LUKIĆ Simo	Gunshot injuries of pelvis	2	<i>hospital iv cannula</i>
098B		STOJAKOV Živko	Gunshot injuries chest	3	
108B		DRAGIČEVIĆ Nikola	Gunshot injury chest	1	
115B		ČEKO Sava	Gunshot injury chest	1	<i>single shotgun pellet</i>
117B		MILANKOVIĆ Jakov	Unascertained	0	
127B		LIČANIN Jovan	Unascertained	0	
145B	217	KNEŽEVIJ Dragutin	Gunshot injury head	6	
153B	223	MILOŠ Borjan	Gunshot injuries head and trunk	4	
156B	154	NN (ID No.154)	Unascertained	0	
158B	156	SAMARDZIJA Milan	Unascertained	0	
162B	248	VUJNOVIĆ Dmitar	Unascertained	0	



## Grave 4 – KN04

### Background

Grave 4 was reported to have comprised two long trenches at right angles to each other, one containing 15 people and the other 14. Most of the bodies were laid on their backs, some of them in body bags, and some simply covered by them.

### General features of the bodies recovered

Following autopsy examination the numbers from the KN04 grave was **29 bodies** and **3 body parts**, the same figures as those supplied by the field team, with the exception of an additional body part made up in the mortuary from a few co-mingled bones found with one of the bodies.

#### *Age, sex, natural disease and old injuries etc.*

- Of the 29 bodies in KN04, **26** (90%) were **men** and **3** (10%) were **women**.
- From anthropology examination, the ages ranged from potentially **30** to **65**.
- Signs of arthritis were found in some, and old fractures in eight of them – of nose, ribs and limb bones.

#### *Clothing and preservation*

- Clothing was still present on all of the bodies, and in 12 cases it was of military type.
- Unlike in the other graves where many of the bodies had substantial amounts of soft tissue still remaining, all of these bodies were completely reduced to a skeleton.

### Injuries

Without exception, everyone in this grave had gunshot injuries. There were no blast injuries but possible blunt force trauma was identified in a few. As always, there were additional fractures attributed as post mortem damage. The injuries can be summarised as follows:

#### **Gunshot injuries**

##### *Number of shots fired*

- In these 29 bodies there were a minimum of 83 gunshot injuries, with up to 9 shots in any one individual
- In ten people there was just a single gunshot injury; in three people there were 2; in eight people, 3; and in the remaining eight, four or more injuries. No obvious pattern emerged among the soldiers, some having been shot only once, others a number of times. The man with 9 bullet injuries did not appear to be military (059B).

##### *Part of the body injured and direction of shot*

- Of the 83 gunshot injuries, 18 (22%) were to the head, 43(52%) to the trunk, 4 (5%) to the arms, and 18 (21%) to the legs, proportions similar to that in the other graves.
- As regards direction of fire:
  - for the head, 67% were from behind or from the side, and 11% were from the front, but with the remaining four injuries the direction was not clear
  - for the trunk, 60% appeared to be from behind or from the side, and 9% from the front, but with the remaining 12, the direction could not be determined



### ***Weapons and ammunition***

- In all 29 cases the fracture pattern of the bones indicated the use of a high velocity rifle, and this was supported by the frequent finding in the remains of sharp pointed bullets or bullet fragments. In one man, no less than 6 bullets were found ((046B)
- In one man (035B) a handgun bullet was found with the body in addition to a fragment of high velocity ammunition. The latter was clearly what had caused the major gunshot injury to his head, and so the handgun bullet may simply have been a contaminant from someone else.
- One man (038B), who was in military clothing, died from a shotgun injury to his chest from the right side, with birdshot pellets and the plastic wad container found inside, the presence of the latter indicating a fairly close range shot. He also however had evidence of one or more high velocity type injuries to his pelvis and so had clearly been shot with two very different weapons - which came first was less easy to say.

### **Cause of death**

The cause of death in these people was straightforward, all of them dying from gunshot injuries and with no unascertained causes. The details are listed below.

#### **Cause of death for the 29 people in KN04**

<b><i>Gunshot injury of head</i></b>	<b>10</b>
<b><i>Gunshot injury of trunk</i></b>	<b>9</b>
<b><i>Multiple gunshot injuries</i></b>	<b>9</b>
<b><i>Gunshot injury of leg</i></b>	<b>1</b>

### **Body parts**

There were only three body parts in this grave:

- 2 'general bones' – collections of isolated bones from the grave area, not necessarily associated with the main bodies and possibly in the grave previously
- 1 small collection of foot bones found co-mingled with one of the main bodies

### **Specific cases**

As before, the cases from KN04 included in the Annex A list are detailed on the next page.



**Annex A cases for KN04**

<b>ICTY no.</b>	<b>Police ID no.</b>	<b>Name of victim</b>	<b>Cause of death</b>	<b>Min. no of shots</b>	<b>Observations</b>
036B	202	SAVIĆ Lazo	Gunshot injury head	1	
046B	209	MILETA Petar	Gunshot injuries head and trunk	5	
056B	229	VUKADIN Dušan	Gunshot injuries trunk	2	
058B	231	MIZDRAK Stevan	Gunshot injury head	1	
059B	235	ŠARE Krstan	Gunshot injuries head and trunk	9	
060B	239	ŠARE Jandrija	Gunshot injuries trunk and leg	3	
061B	236	BERIĆ Stevo	Gunshot injury chest	3	
062B	237	BERIĆ Janja	Gunshot injuries pelvis and legs	4	
063B	234	ŠARE Milica	Gunshot injury head	4	
064B	233	NN (ID No. 233)	Gunshot injury head	2	
065B	238	BERIĆ Djuka	Gunshot injury head	3	
066B	232	ČOSIĆ Miloš	Gunshot injury leg	1	



## Comments on the findings from the Knin Cemetery site

Looking at the Knin Cemetery site as a whole, it is clear that the remains recovered from the four different areas were a mixture – of people who had died a violent death, predominantly from gunshot injuries; people in amongst these bodies in which the cause of death was not obvious; and people whose deaths were probably unrelated, having been patients in hospital or in the community, and dying at about the same time. There may also have been bodies of people who had died previously and who had been buried in the same area as the new arrivals in the cemetery. Additionally, in amongst the remains were unrelated surgical amputation specimens and the bodies of foetuses, clearly being disposed of in a grave which was open.

Thus, there were a number of cases, mainly from KN02, in which the bodies were wrapped in hospital sheets or which showed other signs of the person having died in hospital. In none of these cases could a cause of death be established from the remains and it has to be assumed that they died from a variety of natural causes. Taking the generous view that all 38 unascertained cases from KN02 (from the total of 40 bodies in the grave), and the 12 similar cases from KN03 (also from 40 in the grave) fell into this category, this leaves a total of 245 cases from KN01 (*all 186*), KN02 (2), KN03 (28) and KN04 (*all 29*) who died from obvious trauma or from some other cause which could not be determined. The latter group may well also have included people dying of natural causes, but equally may have included people dying of other non-natural causes of the sort discussed previously, such as knife wounds, asphyxia, drowning, smoke inhalation or intoxication. Such causes would not normally be detectable in such decomposed remains.

Of the assumed 245 ‘genuine’ cases, 202 (82%) had died of gunshot injuries, 6 (2.5%) from blast injuries, one each from blunt force trauma and a knife injury to the head, and the remaining 35 (14%) were those dying from causes unknown.

For those dying of gunshot injuries, the vast majority died from injuries caused by high velocity weapons, but two had been killed by handguns and three by shotguns. 28% appeared to have been killed by a single shot but the remaining 72% had been shot more than once, up to a maximum of 14 times. There was no particular pattern to the shots, the majority being to the trunk - the largest surface area of the body - and striking the body from a variety of directions. There were however, a number of cases in which the person had been killed by a single shot to the back of the head.

Almost a third of the men in the grave appeared to have been soldiers, as judged by the clothing they were wearing or the possessions they had. Of these 81 men (who had either definite or suspected military clothing), 73 died from gunshot injuries and 5 from blast injuries, but in the other 3 the cause of death could not be determined.

The general population in this grave-site appeared to be middle aged and elderly people, with probably only a few under the age of 30, the youngest a soldier in his late teens or early twenties. Excluding the 50 ‘hospital’ cases, the gender mix was 209 men and 36 women (85% and 15% respectively). What level of general health or disabilities they may have had is impossible to say.

The overall findings in the specific cases listed in Annex A appear to show no great differences to the overall findings in the cases generally.



### Pathology team

This overall report has been compiled from the individual post mortem reports completed by a number of pathologists who were involved in the examinations at different stages. They are listed below in the order in which they assisted.

Dr John Clark	<i>Glasgow, United Kingdom</i>
Dr Jaroslav Berent	<i>Bydgoszcz, Poland</i>
Dr Jiri Fialka	<i>Usti nad Labem, Czech Republic</i>
Prof. Maria de Mendonca	<i>Coimbra, Portugal</i>
Dr Sageren Aiyer	<i>Natal, South Africa</i>
Dr Steve Naidoo	<i>Desainagar, South Africa</i>



Dr John Clark  
MB ChB FRCPath DipFM  
Consultant Forensic Pathologist  
University of Glasgow, Glasgow, United Kingdom

Chief Pathologist ICTY, Bosnia and Croatia, 1999 – 2001

11<sup>th</sup> November 2008