

Medico-legal aspects of homicide in Albania

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Abstract

Aim: Our aim was to describe the epidemiological aspects of homicide victims in Albania as well as means, mechanisms, reasons and manners of death due to homicide.

Methods: This case-series study involved 383 victims of homicide during 2008-2013 examined through official forensic autopsy in the premises of the Institute of Forensic Medicine (IFM) in Tirana. Basic demographic and socioeconomic data as well as information on means and mechanisms of murder were collected. Absolute numbers and their respective percentages were reported.

Results: In total, 2962 autopsies were carried out during 2008-2013 in the premises of IFM in Tirana, of which, 383 were due to homicide (12.9%). Around 38% of homicide victims were 30 years old or younger and the proportion of homicide victims declined steadily with increasing age of the victims. More than 70% of homicide victims were males, urban residents and around 70% of deaths due to homicide occurred in outdoor settings. In over 70% of the cases, homicide involved firearms and/or explosions. The cause of death was identified as traumatic-hemorrhagic shock in 62% of the cases and injuries of brain and meninges in 27% of cases.

Conclusion: The total number of autopsies following murder suspicion during the last three years has been constantly increasing, reflecting an inadequate societal reaction against criminality and murder in Albania. The fact that firearms are the preferred instrument of homicide should alert policymakers and law enforcing entities towards their regulation and controlling.

Keywords: Albania, epidemiology, firearms, homicide, murder.

Introduction

Homicide, otherwise defined as murder in the English terminology, is considered worldwide as the worst criminal violent act, perpetrated against the highest values of the human being, which is life itself.

Such a crime will simultaneously provoke more than one victim: first of all, homicide will interrupt illegally the right to life of an individual; secondarily, it will cause an unbearable pain for the family, thus hurting the sense of safety and security of the entire society (1,2).

During 2012 approximately half a million human lives were lost due to homicide (3). Apparently, homicide affects more the young adults as around 50% of homicide victims in 2012 comprised individuals aged less than thirty years old (3). Thus, the homicide phenomenon profoundly shakes the notion of a safe life's perception to every citizen, all over the world (2,3).

There could be distinguished some global patterns regarding homicide. For example, in the overwhelming majority of cases (over 90%) the perpetrators are males (3-6), most of assault victims are also males (3-6) whereas in cases of homicide carried out by intimate partners or family members, the victims are females in approximately two-thirds of cases (3). Regarding the geographical distribution of homicides, more than one third of murders occurred in the Americas, whereas Europe accounted for only 5% of all homicides worldwide in 2012 (3).

Internationally, the average homicide rate was 6.2 per 100,000 population in 2012 (3), with Central America and South Africa exhibiting peak rates of almost 4 times higher than the average rate (3). Western and Southern Europe exhibit much lower rates of homicides, sometimes five times as low as the global average (3). In Albania, according to the World Bank, the rate of homicide was 4 per 100,000 population in 2000-2004 time period with a slight increase up to 5 homicides per 100,000

population during 2005-2012 (7).

Referring to international figures, the rate of homicide in Albania remains the highest in the region. For example, during 2000-2012 the homicide rate (per 100,000 population) varied from one in Serbia, Former Yugoslav Republic of Macedonia, Bosnia and Herzegovina and Croatia to three in Montenegro (7). Therefore, the crime of murder in our country remains still a challenge. In this context, the aim of this study was to describe the epidemiological situation of homicides and defining means, mechanisms, reasons and manners of death due to homicide.

Methods

Study design

This is a case series study involving a sample of 383 forensic autopsies performed in the premises of the Institute of Forensic Medicine (IFM) in Tirana, during the six-year period from 2008 to 2013. During this time period a total of 2962 autopsies were performed in the premises of IFM. Death resulted from homicide, suicide, by accident or it was classified as sudden death. We included only those victims whose death was due to homicide in the present study, according to our study aim. Among the 383 cases covered, 342 were fresh corpses, 36 were decomposed corpses, 4 were carbonized corpses and the last one was a fragmented corpse.

Data collection

For every case under forensic evaluation, a series of information was collected in order to construct the respective epidemiologic profile of the victims of homicide. Therefore, the basic demographic and socioeconomic characteristics of cases were retrieved such as gender, age, profession, economic status and social status.

In order to characterize violent deaths from the medico-legal or forensic perspective, a series of scientific information was collected with regard to:

- topographic distribution of injuries;
- type of injuries;
- severity of injuries;
- importance of the injury by its severity;
- morphologic characteristics of injuries;
- lethal complication(s) of the injuries;
- definition of the cause and mechanism of death.

Statistical analysis

Each case undergoing forensic autopsy was analysed separately and retrospectively. Special emphasis was given to the generalities of each case, ecological and morphological traits, criminal

setting, and laboratory data. The absolute numbers and respective frequencies were reported and the collected data were synthesized in tables and diagrams.

Results

There were 2962 autopsies carried out during 2008-2013 in the premises of IFM in Tirana. Accidental death is by far the most prevalent cause of death among the deceased presented in IFM during this time period, whereas homicides occupy the penultimate place in this classification in terms of frequency with approximately 13% of cases (Table 1).

Table 1. Autopsies during 2008-2013 according to the cause of death in Albania

Cause of death	Absolute number	Percentage
Homicide	383	12.9
Suicide	486	16.4
Accidental	1383	46.7
Sudden death	692	23.4
Environmental (<i>lightning strike, flooding, etc.</i>)	18	0.6
Total	2962	100.0

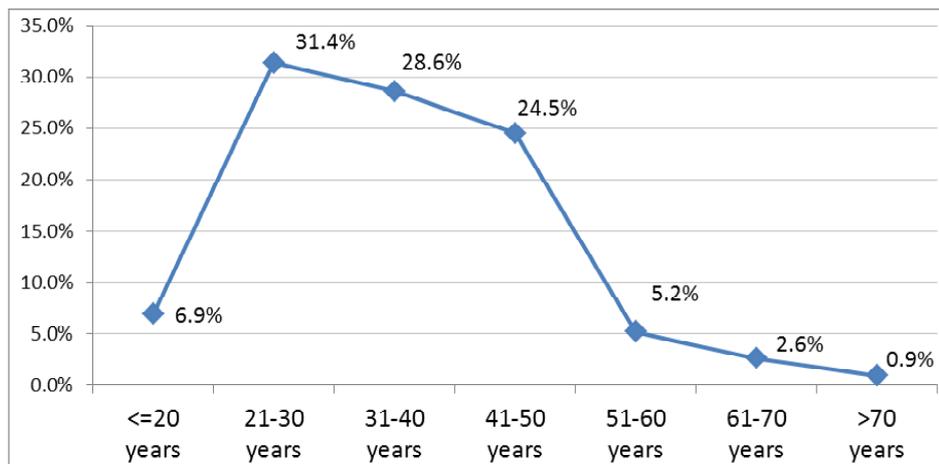
In 95.4% of homicide cases there was only one casualty, in 3.8% of cases there have been two victims and in the remaining 0.8% of homicide cases there were ≥ 3 casualties (data not shown in tables).

The distribution of homicide victims by their age is presented in Figure 1. It can be noticed that in 38.3% of cases the victims of homicide were 30 years old or younger, followed by the 31-40 years age-group with 28.6% of all homicide victims. Homicide victims aged 51 years old or older occupy less than 9% of all homicide victims (Figure 1).

With regard to gender distribution (male to female ratio) we had a clear male dominance with 72.8% of victims being males and 21.8 % females (Table 2). There is a regional distribution with regard to the urban-rural distribution of victims. Almost three-quarters of homicide victims under study resided in urban areas

(74.2%) versus 25.8% of homicide victims that resided in rural areas (Table 2). The majority of murders occurred in outdoor settings (69.2%) and only 30.8% occurred in indoor settings (Table 2).

A considerable part of victims within the young group ages pertained to families with divorced parents, otherwise from 'destructive families' settings (data not shown in tables). The presence of alcohol was detected in 10.6% of all homicide victims (Table 2). Investigative data suggested that a large amount of murders was perpetrated in so-called 'hot spots' such as bars, pubs, restaurants, discotheques, gambling casinos etc., and almost immediately related to alcohol consumption. Victims may have become preys of persons with previous criminal record, prone to get involved in battery and assaults. On the other hand, narcotics were detected in only

Figure 1. Homicides victims by age in Albania during 2008-2013

0.78% of homicide victims under study (Table 2). A much more relative parameter is the daytime profile of the murders that is the distribution of murders according to a circadian profile, days, weeks or even months. There is no regular time distribution of murders within our study sample, and the frequencies are purely disparate. A slightly higher percentage of murders during hot periods may be related with higher exposure of individuals due to more outdoor walks (data not shown in tables).

Regarding the event circumstances, means and mechanisms through which the injuries were perpetrated, we found that the highest number of murders was related to firearm and/or explosion injuries with 71.3% of homicide victims presenting this type of injuries, followed by injuries from stabbing instruments with 15.7% of cases, blunt traumatic injuries were responsible for 11.8% of cases and asphyxia as a mechanism of death was present in 1.2% of homicide victims (Table 2).

Table 2. Homicide victims during 2008-2013 according to various parameters

Variable	Absolute number	Percentage
Sex of homicide victim		
Male	279	72.8
Female	104	27.2
Residence of homicide victim		
Urban	284	74.2
Rural	99	25.8
Homicide setting		
Indoor	118	30.8
Outdoor	265	69.2
Presence of alcohol		
No	342	89.3
Yes	41	10.7
Presence of narcotics		
No	380	92.2
Yes	3	7.8

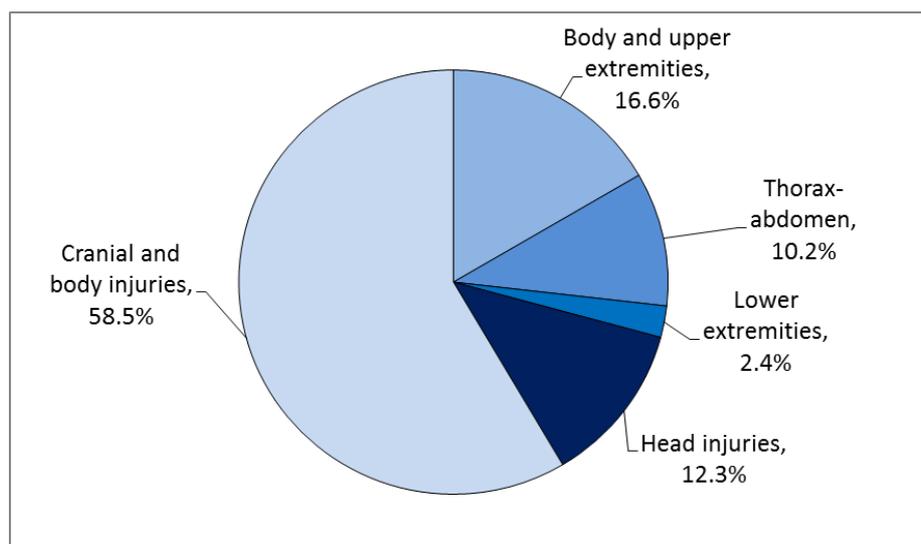
Variable	Absolute number	Percentage
Type of lethal injury		
Firearms/explosions	273	71.3
Stabbing	60	15.7
Blunt traumas	45	11.8
Mechanical asphyxia	5	1.2
Cause of death		
Traumatic-haemorrhagic shock	239	62.3
Brain and meninges injury	105	27.4
Fat embolism	8	2.1
Thromboembolism	5	1.4
Other	26	6.8

With regard to the cause of death the results are summarised in Table 2 as well. The most prevalent cause of death was the traumatic-haemorrhagic shock present in 62.3% of the cases, followed by injuries of the brain and meninges present in 27.4% of homicide victims under study (Table 2).

The severity of injuries and their localisation have some specificity. The motive of the murder

sometimes may be indicative. Thus, we had injuries confined to cranial localizations in 12.3% of the murders under study; 58.5% of the cases involved both cranial and body injuries; in 10.2% of cases the injuries were confined in the body; in 16.6% of the cases the body and upper extremities were affected; and only in 2.4% of cases lower extremities were involved (Figure 2).

Figure 2. Area of body affected by the lethal injury among homicide victims, 2008-2013



Lethal injuries in our study had some characteristics, summarized succinctly as follows: wounds localized only in cranial areas have been met in 71% of the cases. This indicated a predilection for perpetrators

to aim at the head, with a higher probability of afflicting deadly the victim. Head wounds generally were multiple.

Discussion

This study provided a detailed picture of the epidemiology of homicides in Albania during the period 2008-2013, thus highlighting a scarcely reported topic in this transitional South East European country. We found that victims of homicide were commonly young adults, predominantly males and those residing in urban areas. In most cases the mechanism of murder was by means of firearms/explosions, followed by knife wounds with death resulting most commonly by traumatic-haemorrhagic shock. Furthermore, at least 70% of homicide victims involved injuries of the head. As mentioned earlier, homicide constitutes a challenge in Albania as figures indicate that the rate of homicide in this country is higher than in the neighbouring countries and also considerably higher when compared to rates of developed countries of Western Europe. The homicide rate in Albania (per 100,000) population is two to four times higher compared to the rate in Austria, France, Germany, Netherlands, etc. (3,7). One explanation for this considerable difference could be linked to the age structure of respective populations. Albania has, on average, a considerably younger population (8) compared to other European countries. Since approximately half of homicide victims are people aged 30 years old or younger then this factor could give its contribution to higher rates of homicides in Albania compared to other European countries. On the other hand, socioeconomic transition and social disruption could lead to higher levels of homicide as well. According to Pridemore and Kim, societies in rapid social, political and economic transition often produce harsh conditions that stimulate criminal and deviant behaviour (9). The latest report of UNODC regarding the situation of homicide from a global perspective shows that Russia and Poland, two countries in rapid transition, have very high rates of homicides per 100,000 population (3). Albania is in a stage of difficult socioeconomic transition following the collapse of communist regime (10). This difficult situation accompanied by the fact the Albania continues to be one of the poorest countries in Europe (11) might contribute further toward the increasing of

homicide rates in our country. The transition period (10), poverty (11) and the high rate of homicides in Albania (3) could be an indicator of the highly problematic situation of criminality records in this country. Indeed, the local media is overwhelmed with reports of killings between rival bands aiming to control drug and human trafficking, illegal weapon smuggling and other illegal activities. On the other hand, we have a number of individuals with previous criminal record that enter into murder world due to different reasons, such as robbery, sexual assaults, revenge and blood feud crimes, etc.

During the last three years of the study period we noticed an increasing of the share of deaths from homicide in the autopsies performed in the premises of IFM in Tirana. This finding might be a sign of insufficient societal counteraction versus criminality in general, and murder especially, during the transitional period in Albania.

The finding that a considerable proportion of homicide victims comprise young adults is in line with reports from international literature (3-6,12,13). Also, the gender gap suggesting that most victims of homicide are males is in accordance with earlier reports (3-6,12,13). It is common knowledge that males are more active in the everyday social and economic life, and they consume alcoholics and drugs more often and in large quantities, thus are more predisposed to get involved in violent actions and illegal behaviour and to be victims of homicide as well. In our study, around one third of homicide victims were females. This result mimics those of international literature (14). However, women might be at higher risk than men to get killed by an intimate partner (14). This is very relevant for Albania because often the female victims are descendants of families with poor economic and highly patriarchal background living mostly in informal dwellings of suburban areas close to big cities, areas where the level of prejudice is considerable and where moral and honour rules have a great influence over female victimization.

Regarding urban-rural difference in homicide rates, our results are supported by some studies (15) but

some other studies report the inverse trend (16) or no differences (17). However, in Albania the increasing urbanization processes and population density in urban and suburban areas coupled with the heterogeneity of population in big cities might partly explain a higher prevalence of homicide in urban areas.

We reported that around 70% of all homicides have occurred in outdoor settings. Victims have been uncovered mainly in isolated areas, city suburbia, under caves or drown in rivers and few cases have been uncovered inside apartment blocks, parks, schoolyards, etc. Of interest might be the fact that indoor murders that are perpetrated in absence of potential witnesses are becoming more frequent during the last years. Many indoor homicides are crimes within families but other settings have been detected such as pubs, hotels, cafés, discos, offices, etc.

A considerable part of victims within the young group ages pertained to families with divorced parents, otherwise from "destructive families" settings (data not shown in tables). This means that these individuals were raised up with insufficient parenting right from early growth. Family disruption could lead to higher participation in criminal activities (18).

We found presence of alcohol in 10, 6% of the homicide victims under study. This might quite well prove the reinforcing effect of alcohol toward verbal and physical violence that to some degree might be related with the perpetration of the murder itself. Traces of narcotics were present in only 0.78% of cases. However, psychoactive drugs abuse is widely accepted as

influencing factors in crime mechanics (19).

A disturbing finding was that more than 70% of homicide victims in Albania were killed by a mechanism involving firearms. For comparison, generally only 4 out of 10 homicides are carried out by firearms globally, blunt trauma or physical force kill about one third and knives or other sharp objects are responsible for about a quarter of all homicide deaths (3). In this regard, Albania is similar to the USA where between 1976 and 2005 around 63-67% of all homicide deaths involved firearms (12). However, in USA one can possess a firearm under legal basis but this is prohibited in Albania. For comparison, in Europe the involvement of firearms in homicide deaths was around 13% in 2012 (3). In this context, the very high share of homicide deaths involving firearms should constitute a very critical problem for the entire Albanian society.

In conclusion, the total number of autopsies following murder suspicion during the last three years has been constantly increasing. This reflects an insufficient societal reaction against criminality and murder, following a prolonged transitional period in Albania. Medico-legal expertise of homicidal cases is a highly important investigative step. Such an expertise must take place within the shortest time delay possible, because the forensic consultancy might produce highly scientific findings, helping to detect and qualify crime mechanisms. Firearms are the preferred mean of homicide in Albania. This should alarm policy-makers and law enforcing entities toward their regulation and controlling.

Conflicts of interest: None declared.

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