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The year 1989 and its reflection in the forensic medicine

Hajtman A.[1], Komáreková I.[2], Straka Ľ.[2], Novomeský F.[2]

[1] Forensic Medicine Office of the Healthcare Surveillance Authority, Martin, Slovakia
[2] Institute of Forensic Medicine and Medical Expertises, Jessenius Faculty of Medicine, Comenius University and University Hospital, Martin, Slovakia

SUMMARY
The country's current social and political situation is always reflected in the character of crime through specific laws and encoded rules in the country. This relationship is evident especially in historical turning points – events marking radical changes of the social regime. During the years following 1989, an increase in crime was noticed in the Slovak Republic, which seemed to be influenced not only by ideological and political factors, but also by economical and juridical ones. This increase can be noticed up to the present, as the annual number of violent criminal acts and brutal murders still remains high. Violent crime contributes by 14 percent to the crime counts in the Slovak Republic. The aim of presented study was the comparative analysis of chosen forms of violent crimes and the consequences of the most serious crimes in the Middle Slovakia region during the era of political regime changes within the period from 1985 to 2006.

Keywords: add – some – keywords – please

Rok 1989 a jeho odraz v soudním lékařství

SÚHRN
Aktuálna spoločenská a politická situácia sa prostredníctvom sebe špecifických právnych noriem vždy premieta aj do charakteru kriminálnej činnosti v tom ktorom štáte. Uvedená závislosť je badateľná najmä v tzv. historických medzníkoch, keď sa radikálne mení spoločenský režim. Po roku 1989 bol na Slovensku zaznamenaný vzostup kriminality, na ktorý vplývali faktory nielen ideologického a politického, ale aj právneho a ekonomického charakteru. Tento vzostup možno pozorovať až do súčasnosti, pričom stále pretrváva vysoký počet násilných trestných činov a brutálne páchaných vrážd. Násilná kriminalita sa podieľa 14 % na štruktúre kriminálnej scény Slovenskej republiky. Úlohou analýzy vybraných foriem násilných trestných činov v tejto práci bolo zmapovať problematiku následkov najzávažnejších trestných činov v regióne stredného Slovenska v období spoločenských zmien rokov 1985 až 2006.

Klúčové slova: prosím – doplnit – klíčová – slova

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Crime is one of the most serious social worldwide problems, one of the dark sides of the humanity. It interferes with social, economical, cultural, political and even safety spheres of the life of society. Violence as a socially pathological phenomenon has accompanied mankind since its origin. The term "crime" was for the first time used by English philosopher and sociologist H. Spencer, one of the fathers of positivism in the social sciences, who was investigating the parallels between social and biological pathology (1). From psychologist's point of view, violence is defined as "pathological way of interaction of a particular individual or a group with its surroundings." (2).

Expansion of crime as well as violent crime in the last few decades affected all the countries around the world regardless their political, social, economical and cultural status, disintegrating the myth about its attenuation. In general, the increase of positive social changes accompanied by expansion of human rights, democracy, setting countries' boundaries free and by quickly improving scientific and technical development was considered an impulse for the expansion of crime. It is sufficiently documented and also ideally reasonable that crime is a phenomenon uncommonly resistant to any repressive acts, no matter how hard they are. Furthermore, crime is considerably adaptable, because it promptly reacts to different conditions even if they are quickly changing. Last but not least, crime is also inventive, being capable of finding its own benefits in the positive and even in strictly negative social changes. Due to the aspects listed above, the system which controls all forms of crime including violent crimes is a highly challenging problem, not only scientific but also factual (3).

Among the important bases for improving the system of violent crime control and prevention are statistic data regarding its structure, dynamics, development, and directions and also crime-generating factors, offenders and victims of violent criminal acts.

The analysis of structure and dynamics of the chosen forms of violence directed against another person with the consequence of death during the time period from 1985 to 2006 in the Middle Slovakia region was motivated by effort to find such bases.

✉ ***Address for correspondence:***
MUDr. A. Hajtman
Úřad..... soudního lékařství
Ulice, 333, Martin
Slovenská republika
tel: +421 987 654 321
email: hajtman@soudnilek.sk

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MATERIALS AND METHODS

Material for the analysis of violent deaths comes from the archived registers of the Institute of Forensic Medicine and Medical Expertises, Jessenius Faculty of Medicine, Comenius University in Martin and the Forensic Medicine Office of the Healthcare Surveillance Authority in Martin. Both institutions cover the medicolegal autopsies of eight (4) districts of Middle Slovakia. As stated before, the time period of analysis included years 1985–2006. 520 cases classified as "death due to criminal act of another person" were processed in the presented analysis. The chosen cases included deaths due to shot wounds, stab injuries and other forms of violence. All data were recorded electronically. Due to the main purpose of this work, the cases were considered separately in two groups – the cases that happened before 1989 and those which happened after 1989 (including 1989), the year which was considered an important historical milestone of political and economical changes in our country.

The structure of the analyzed collection of files, divided into three groups according to the cause of death is shown in the Table 1. The age pattern of the deceased is shown in the Graph 1.

RESULTS

The age structure of victims from the analyzed groups in the time period 1985–1988 and 1989–2006 is shown in the Graphs 2 and 3, respectively.

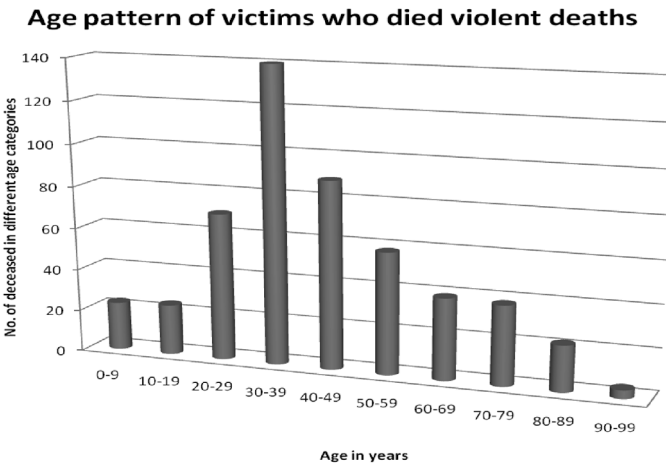
The average age of deceased before 1989 and those after 1989 was 43.7 years and 42.4 years, respectively.

The median of age of deceased before 1989 was 37, compared to the median of age of deceased after 1989, which was 39 years of age.

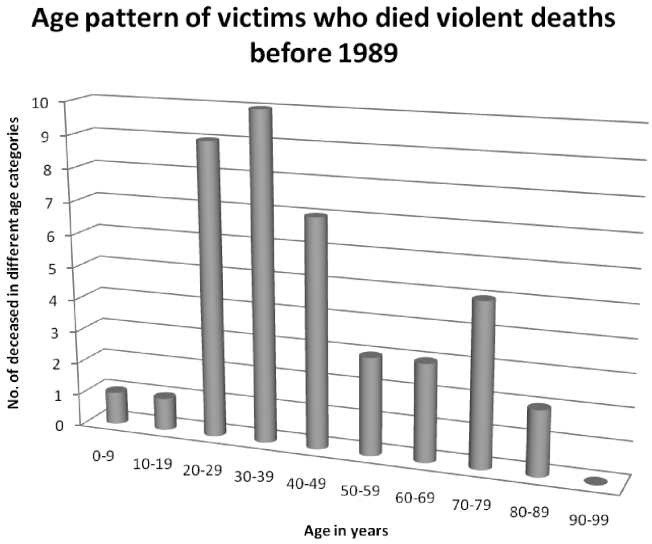
The average annual number of deceased being violently killed was 10.5 (standard deviation ±4.1) in the time period 1985-1988, and 26.6 (standard deviation ±9.4) in the time period 1989–2006.

Table 1. The form of violence distribution in the time period 1985–2006.

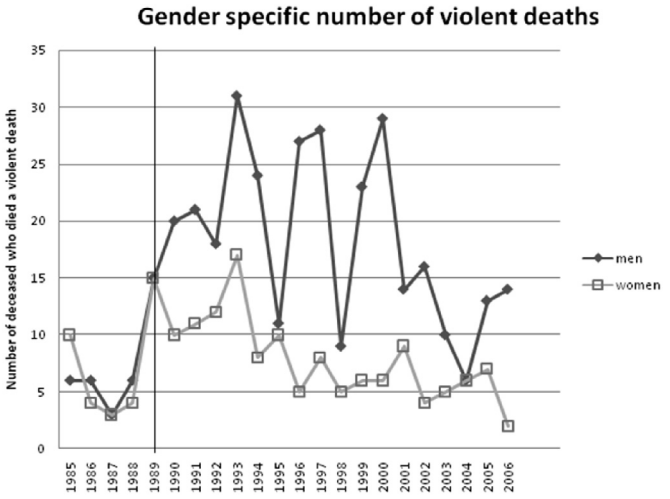
YEAR OF KILLING	SHOT WOUNDS	STAB WOUNDS	OTHER VIOLENCE	DECEASED TOGETHER
1985	0	4	12	16
1986	2	4	4	10
1987	1	3	2	6
1988	2	3	5	10
1989	0	11	19	30
1990	4	11	15	30
1991	5	11	16	32
1992	6	10	14	30
1993	15	9	24	48
1994	6	10	16	32
1995	3	7	11	21
1996	12	8	13	33
1997	10	14	12	36
1998	5	3	6	14
1999	12	9	9	30
2000	8	4	23	35
2001	4	9	11	24
2002	4	8	8	20
2003	5	5	5	15
2004	4	2	6	12
2005	4	5	11	20
2006	4	5	7	16
Total	116	155	249	520



Graph 1. Age groups.



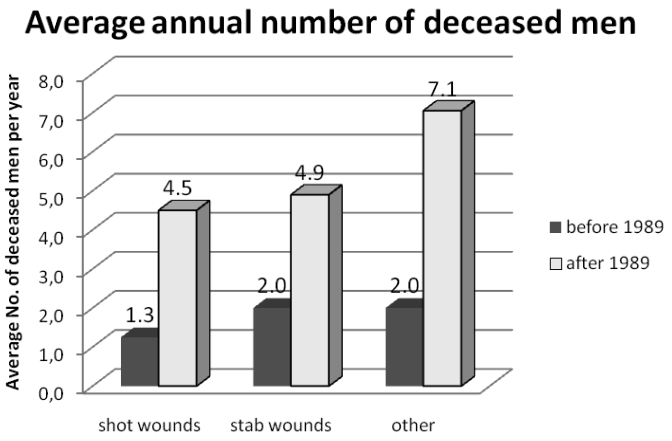
Graph 2. The age pattern of deceased before 1989.



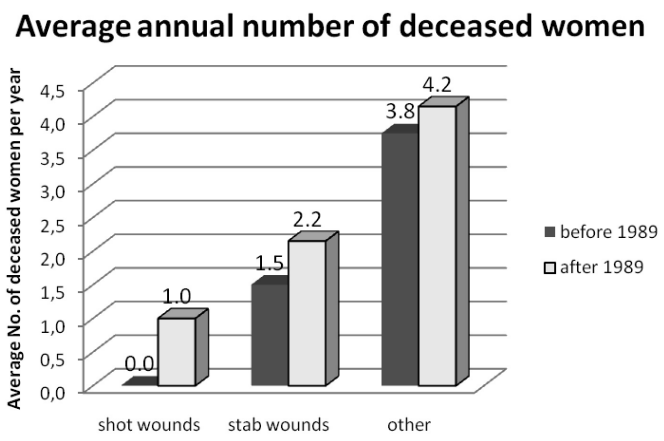
Graph 3. The age pattern of deceased after 1989.

Analysis performed by Student t-test for two independent variables showed that average annual number of violent deaths after 1989 was significantly higher in comparison to average annual number of violent deaths before 1989 (significance level α=0.01, $p<0.01$).

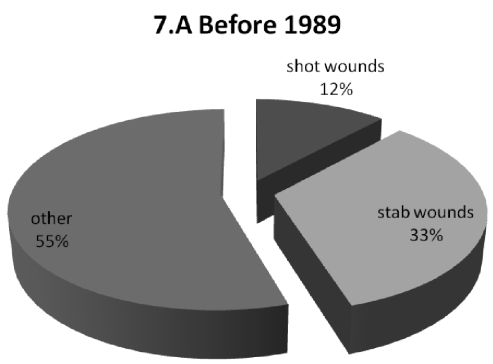
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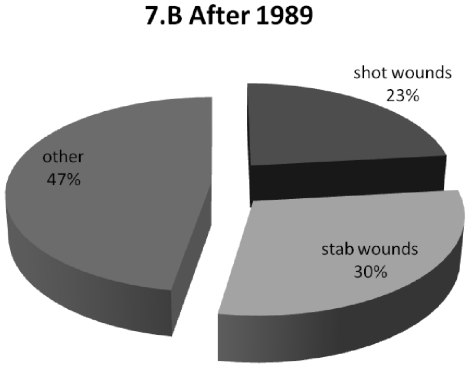
Graph 4. Number of deceased men and women per year, in the years within 1985–2006.



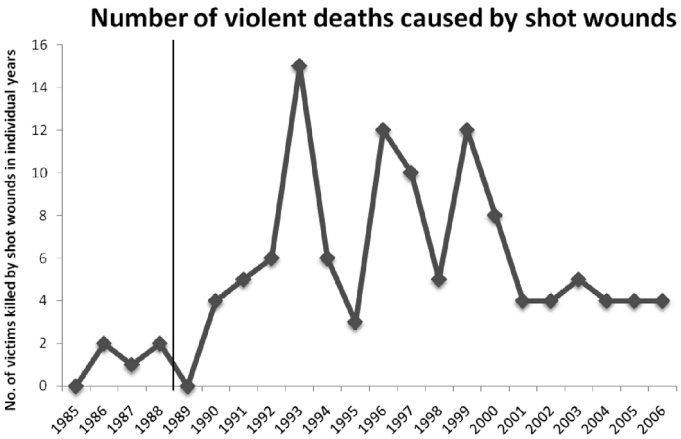
Graph 5. The average number of deceased men per year during the time periods 1985–1988 and 1989–2006.



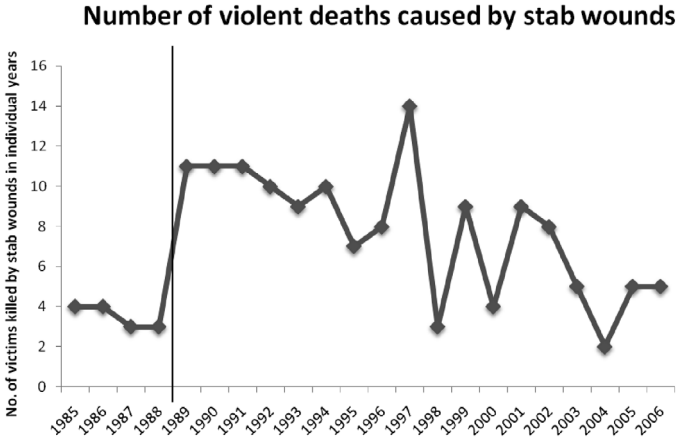
Graph 6. The average number of deceased women per year during the time periods 1985–1988 and 1989–2006.



Graph 7. Proportion of deaths caused by shot wounds, stab wounds and other violence on the total number of deceased: 7A) before 1989, 7B) after 1989.



Graph 8. Number of victims killed by shot wounds in the years within 1985–2006.



Graph 9. Number of victims killed by stab wounds in the years within 1985–2006.

Graph 4 shows the number of deceased (violent deaths) for men and women in the particular years. The increase after 1989 is significant for men (α=0.01, p<0.01), while being non-significant for women (significance level α=0.05, p=0.09).

The average number of deceased men and women killed by shot or stab wound or other violence per year during time periods of 1985–1988 and 1989–2006 are shown in the Graphs 5 and 6, respectively.

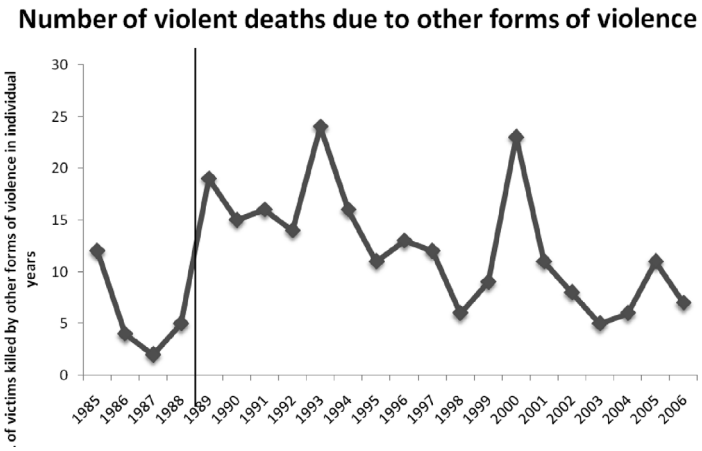
The Graphs 7A and 7B show proportion of deaths caused by shot wounds, stab wounds and other forms of violence among overall number of deceased before and after 1989. Comparison of these two graphs shows evident increase in the proportion of shot wounds, this rose from 12 percent (within 1985–1988) to 23 percent (within 1989–2006).

The Graph 8 shows the number of persons killed by shot wounds in each year of the time period from 1985 to 2006. The number of persons killed by stab wounds and other forms of violence is shown in Graphs 9 and 10, respectively.

CONCLUSIONS OF THE ANALYSIS

The detailed epicritic analysis of 520 cases of violent deaths due to criminal act of another person in the Middle Slovakia region con-

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Graph 10. Number of victims killed by other forms of violence in the years within 1985–2006.

firmed the previously assumed and statistically significant increase of number of such deaths after 1989.

The average age of persons killed in the time period before 1989 was 1.3 years higher than the average age of those killed after 1989.

The median of age of persons killed before 1989 was 2 years lower than the median of age of compared group after 1989.

The most frequent age category of persons killed in both time periods was between 30 and 39 years of age.

The highest number of killed women as well as men was disclosed in 1993.

The change of structure in the manner of killing was noted in the analysed group. In the time period after 1989 there was 11 percent increase in proportion of deaths due to shot wounds in comparison to period before 1989. Nevertheless, the proportion of cases in both periods was highest for deaths due to other forms of violence; next, stab wounds and the lowest proportion were deaths due to shot wounds.

Increase of number of persons being killed after 1989 was confirmed by statistical analysis performed by Student t-test. The total number of violent deaths per year was significantly higher after 1989, in comparison to period before 1989. However, the increase of number of persons being killed after 1989 was statistically significant only in men.

The line charts displaying the annual numbers of deaths caused by shot wounds, stab wounds and other forms of violence in the time period 1985–2006 show that these three categories have different time characteristics. The annual number of deaths caused by stab wounds and by other forms of violence started to rise directly in 1989, while the deaths due to shot wounds were still low in 1989, began to rise only in 1990 and reached the peak in 1993. The highest annual number of deaths caused by stab wounds was shown in 1997 and the highest annual number of deaths due to other forms of violence was shown in 1993.

DISCUSSION

The time period from 1985 to 2006 is in many respects characterized by important historical changes in our society. Authors of this article have analysed this time period based on the data collection of chosen violent deaths from the point of view of their number, structure and time characteristics.

The Slovak Republic can be included into the group of post-communist countries of the Middle and Eastern Europe. The actual state of crime in this region reflects its historical, social, cultural and political development, after 1945 in particular. Until 1990, the crime was markedly repressed and controlled by the state authorities, leading to its decline, which was unfortunately only transient.

This fact is obvious in the above presented graphs showing the number of deaths due to stab or shot wounds or other violence in the analyzed cases from the Middle Slovakia region during the time period 1985–1989.

A completely different situation with massive increase of crime as well as violent crimes arises and develops after 1990. The number of violent crime acts (murders) almost doubled in 1990 in comparison to 1989. Besides the change in quantity of crimes, in this time period a qualitative change in the criminal acts was also seen, meaning they became more brutal, new methods of killing have appeared and also types and characteristics of offenders widened. The structure of crime changed as well, with the appearance of its new forms – e.g. crimes related to drug abuse, racketing, kidnapping, organized crime, etc. (5).

Rapid increase of murders by stab injuries and other violent forms was confirmed by authors in the analyzed group from Middle Slovakia as soon as in 1989. Graph showing the number of persons being killed by shot wounds shows a different trend. A distinct increase in the number of deaths came in 1990 after a decrease in 1989. We suppose that the reasons for this time delay can be searched for in the first general amnesty of convicted prisoners in January 1990, when 23 260 people were released from prisons, which is more than 2/3 of all prisoners in these times (6). Increase of number of deaths by shot wounds culminated in 1993. This fact closely follows the number of crimes documented in the statistics of Police Corps of the Slovak Republic. According to these statistics, crime culminated in the whole time period after 1989 (7). The rise of organised crime in this time period contributed to these numbers as well (8).

CONCLUSION

Dynamic increase of crime is one of specific and acute problems of contemporary social situation. This negative social phenomenon in Slovakia requires qualified and continual monitoring and analysis of status, structure and trends of violent crime scene. Authors' analysis of consequences caused by the most serious violent crimes in the Middle Slovakia region from the forensic medicine's point of view has its importance not only for crime prevention in the region but also for its repression on the regional level in the cooperation with police organs.

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