

## INTRA-HOSPITAL DECEASES TURNED INTO MEDICO-LEGAL CASES

A. BĂLESCU<sup>1</sup>    B. BARNA<sup>2</sup>    L. EREMIA<sup>2</sup>  
L. ROGOZEA<sup>1</sup>    L. NEDELCU<sup>1</sup>

**Abstract:** *The clinical and implicitly medico-legal casuistry show that a number of deceases, having occurred during the hospitalization, enter the suspicious-death category; in this cause the medico-legal autopsy being required, at the prosecuting bodies' written solicitation. In order to prevent the dysfunctions, which might lead to the disappearance of important events in determining the juridical truth in the cause, a close collaboration between the clinical and medico-legal institutions is necessary, based on the legislation afferent to this set of issues.*

**Key words:** *suspicious death, intra-hospital deceases, medico-legal autopsy.*

### 1. Introduction

The current medical practice shows that a number of deceases having occurred during hospitalization turn into medico-legal cases, the autopsy of the corpse being compulsorily effectuated by a coroner, at the prosecution bodies' solicitation, issuing an Autopsy Report, in accordance with the legislation in force.

This way, in the Procedural Norms as regards effectuating the expertises, the ascertainment and other medico-legal works, from O.G. no.1/2000, Section 5 – Medico-legal ascertainment and expertise on corpses, Art. 34, paragraph 2), there is stipulated that the medico-legal autopsy of the corpse is effectuated at the prosecuting bodies' solicitation, only by the coroner, it

being compulsory in the following cases: violent death or suspicion of violent death and unknown death cause [3].

Through *violent death* a person's decease is understood, as a consequence of the traumatic factors from the external environment acting upon the organism [1].

Death is qualified as non-violent if it is due to some intrinsic causes of the organism (cardio-circulatory diseases, tumours, inflammations etc.).

The primordial object of any medico-legal autopsy consists in ascertaining the sort of death – violent or non-violent, considering that violent death is always caused by infringing or not observing the law, falling under the incidence of the Penal Code's provisions [2].

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<sup>1</sup> Faculty of Medicine, *Transilvania* University of Braşov, e-mail: [dr.balescu@yahoo.com](mailto:dr.balescu@yahoo.com)

<sup>2</sup> Corresponding author *County Forensic Services*, Braşov, nr. 23, Victor Babeş Str., tel. 0268/415606

In order to reduce to the minimum the disappearance risk of some useful evidence to the prosecuting body, for the onsite research, in the above mentioned causes, the same legislation stipulates at Art. 44, paragraph 1), the obligation, for the management of the sanitary units “to notify, within the first 24 hours, the prosecuting bodies, upon the deceases having supervened in the sanitary unit, under the conditions stipulated by the present order, the medical examiner’s death certificate not being issued in these cases.” [3].

## 2. Purpose of the Study

The main purpose of the study has been to analyze in detail those intra-hospital deceases which, from various reasons, turned into medico-legal cases, the autopsy being effectuated at the morgue of the County Emergency Service Braşov, at the prosecuting bodies’ written solicitation.

This study emphasizes the closeness between clinical and medico-legal medicine, pointing out to the clear interactions between the two medical fields, they not being separate – an idea still lingering in many physicians’ mentality.

Knowing the particular aspects determining a clinical case to turn into a medico-legal case, under the direct incidence of the criminal investigation, has great importance for the doctors from all medical fields – surgical or non-surgical – in order to avoid the apparition of some dysfunctions related to compulsory researches, such as: the disappearance risk of some useful, important evidence, even essential in some cases, for determining a juridical truth.

## 3. Material and Method

For the study, there were used the data comprised in the Autopsy Reports from the archive of SML – Braşov, referring to a two-year period, respectively the years 2006 and 2007.

All cases were selected for which, in their “history”, the patient’s hospitalization was registered, the decease occurring during that period, after a shorter or longer interval from the hospitalization date.

The obtained data were statistically processed, the study being retrospective and descriptive, resorting to the following criteria: age, sex, environment of origin, type of death, legal classification of the violent deaths, medical causes of the non-violent, pathological deaths.

The study also comprises a statistical reporting of the intra-hospital deceases turned into medico-legal cases, to the total number of the hospitalizations and of the deceases in the hospital over the two years.

## 4. Results

Out of the total of 99188 hospitalizations registered during the studied two-year period, 2044 cases, representing 2.06%, resulted in the patient’s intra-hospital decease.

Out of the total of 2044 deceases occurred during the hospitalization, for a number of 229 cases, for various reasons, researches were called for by the prosecuting bodies, the autopsy being effectuated at the morgue of SML Braşov by a coroner, these cases representing 11.2%.

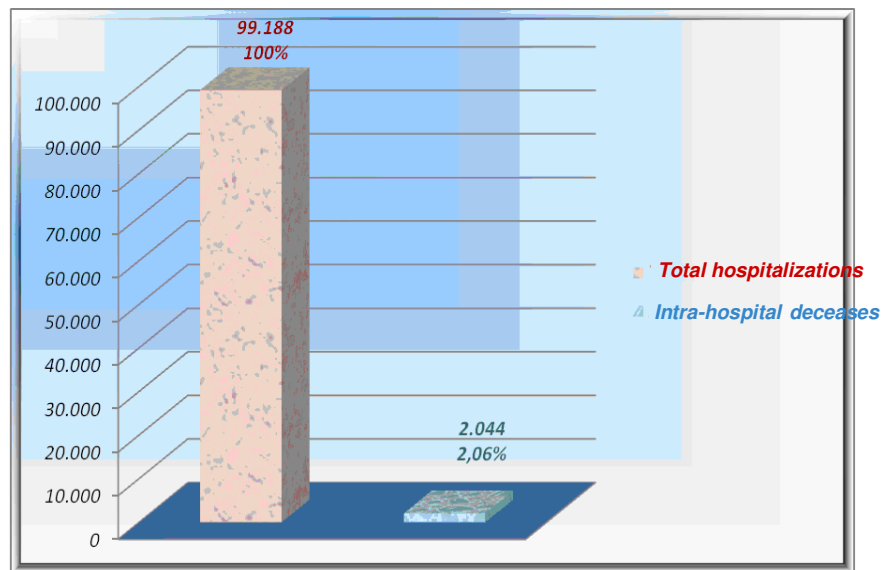


Fig. 1. *Number of hospitalizations and intra-hospital deceases (4)*

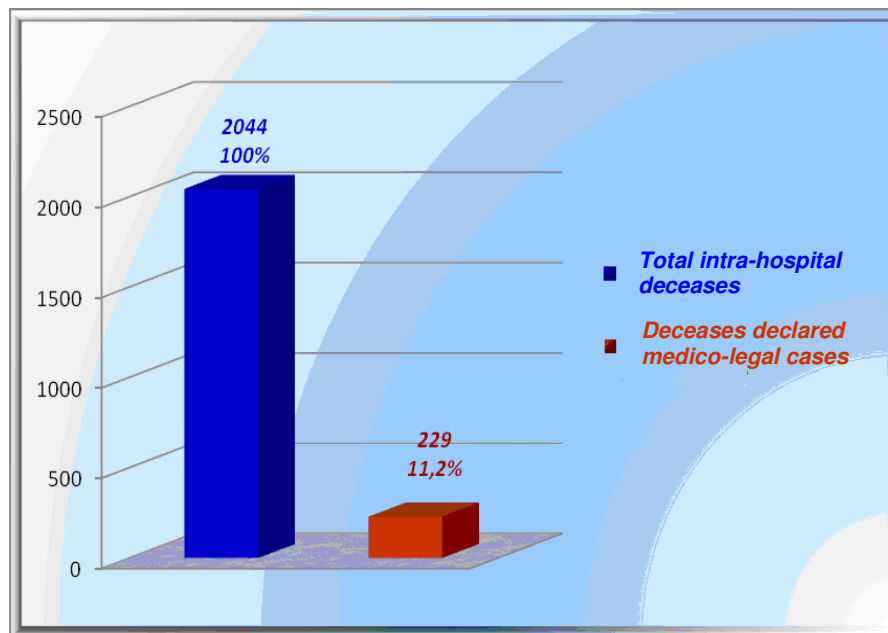


Fig. 2. *Deceases declared to be medico-legal cases (4)*

Their distribution on sexes reveals a clear male predominance, on the average with almost three quarters of the overall

cases, respectively 73.36%, during the year 2006 being of 78.64%, and during the year 2007 being of 69.36%.

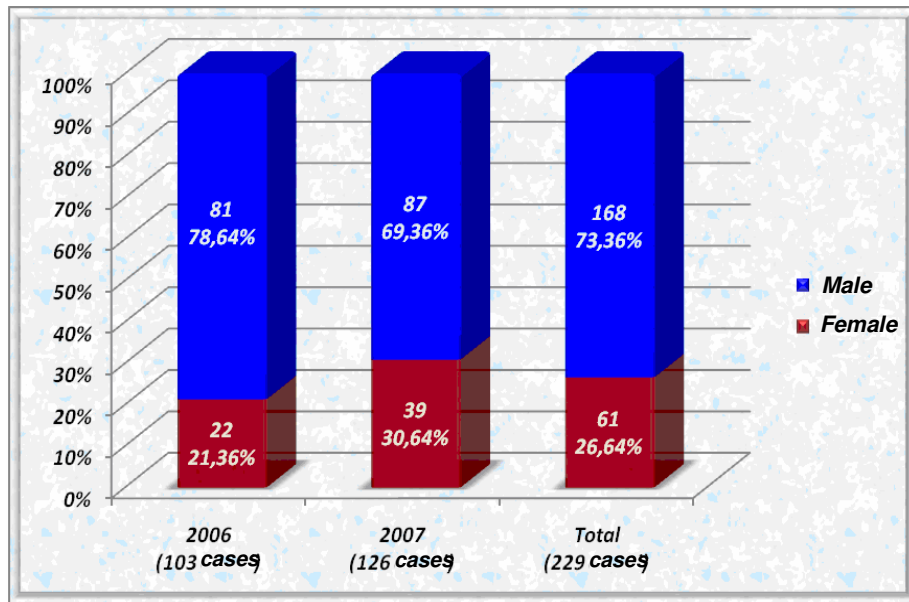


Fig. 3. *Distribution of the deceases on sexes (4)*

The case distribution on three age categories, respectively up to 40 years, between 41-60 years and over 60 years, prevails for the over-40-year aged groups, with equal percentage between the last two.

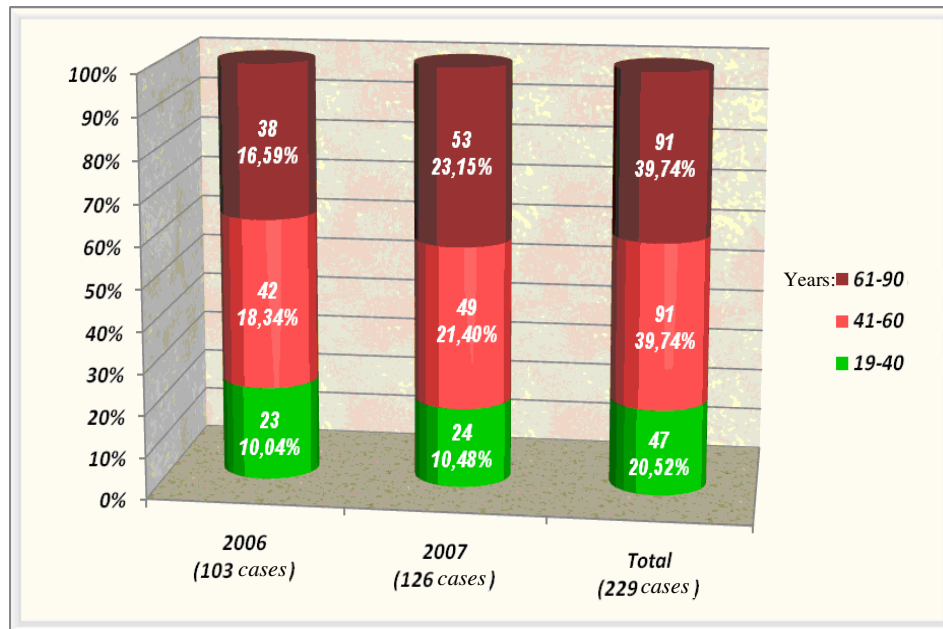


Fig.4. *Distribution of the deceases on age groups (4)*

The case distribution according to the type of death shows, as expected, that the violent-cause deceases – happened at a certain interval from the occurrence of the traumatism, during the hospitalization –

are obviously prevailing. These cases stand for 70.74% of the overall intra-hospital deceases, the rest proving to have non-violent causes.

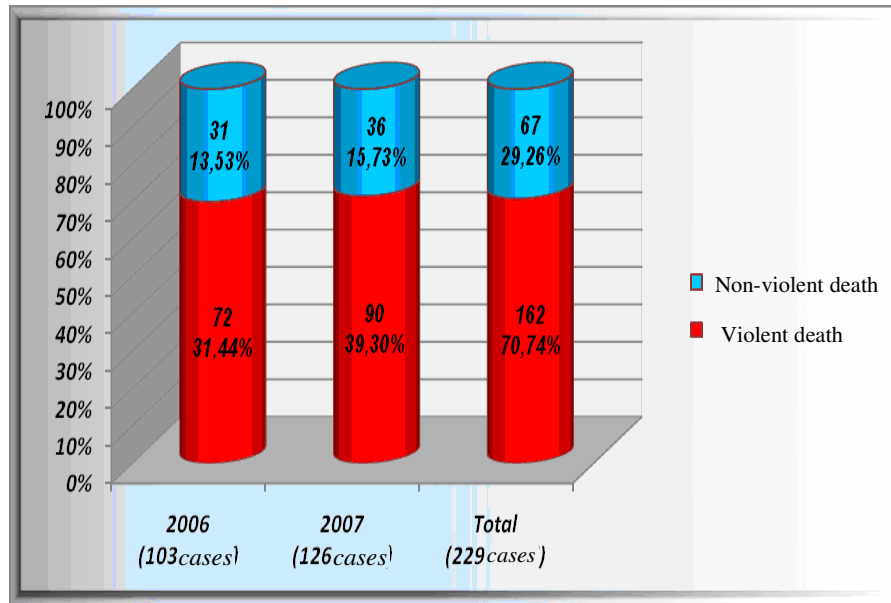


Fig.5. *Distribution of the deceases according to the type of death (4)*

Violent deaths, according to their legal classification in the three categories – accidents, suicides, homicides – have a clear prevalence, of 85.2%, for their production under the circumstances of an accident, only 9.25% being through suicide and 5.55% through homicide.

All accidentally produced violent deceases fit within three circumstantial groups: almost half of them, respectively 49.27% were road accidents, 34.78%

household accidents and 15.95% labour accidents.

The suicide cases, with decease occurred during the hospitalization likewise fit within three categories: 60% cases were through ingestion of toxic substances, 20% through precipitation and 20% through hanging.

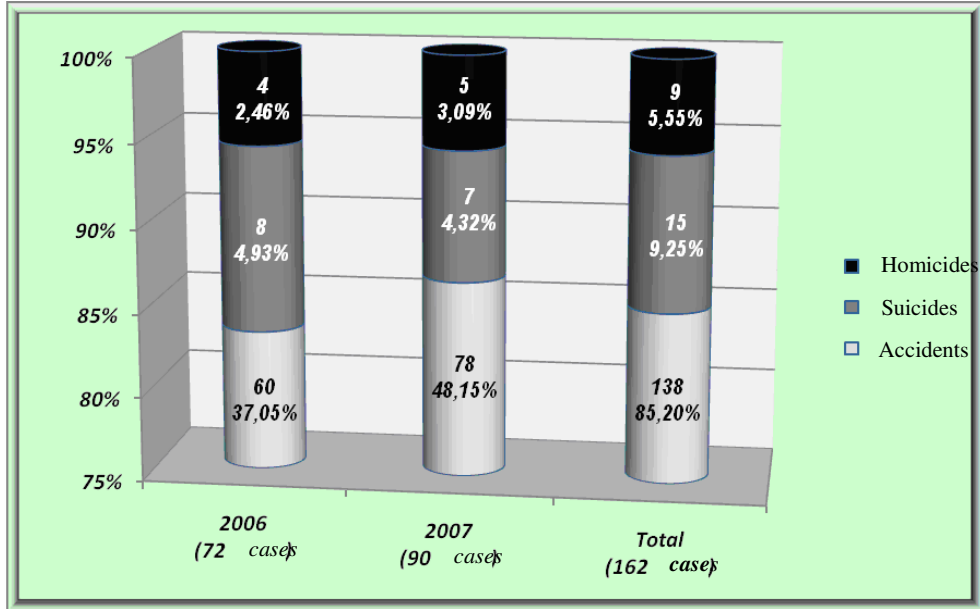


Fig.6. *Distribution under judiciary aspect of the violent death (4)*

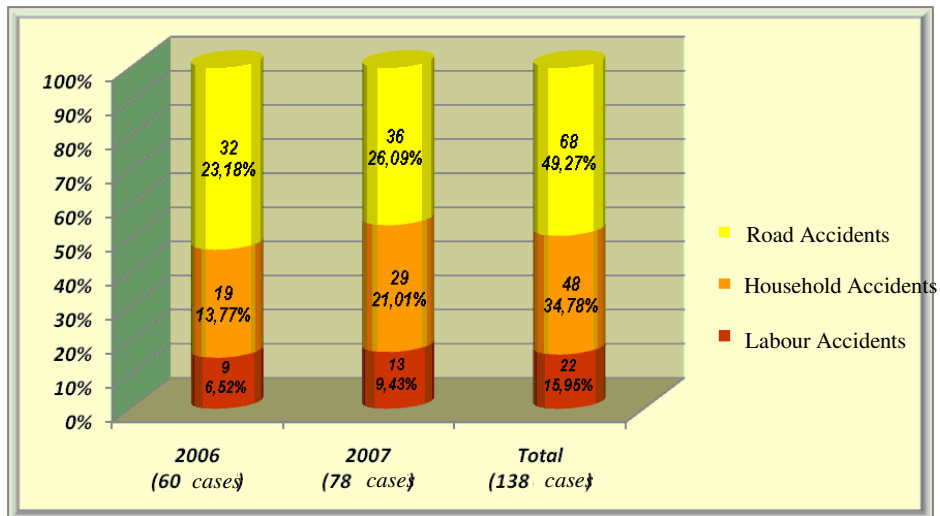


Fig.7. *Distribution of the deceases according to the type of accident (4)*

If we refer to the topographical distribution of the violent death, out of the total of 162 deceases, there may be noticed that multiple traumas prevail (43%), followed by cranio-cerebral traumas (41%), by abdominal traumas (10%) and by thoracic traumas (6%).

There may be noticed that during the year 2006, the violent-death deceases were pre-eminently determined by multiple traumas (32) and cranio-cerebral traumas (30). The violent deceases caused by abdominal traumas and thoracic traumas together account for 10 cases.

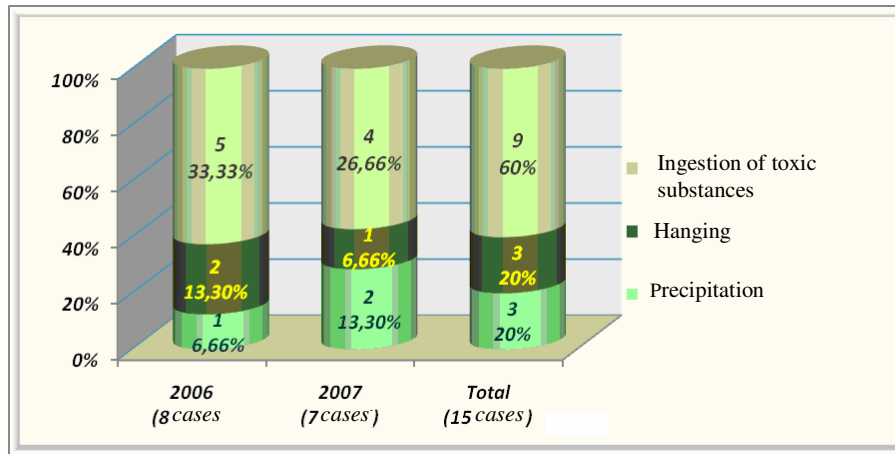


Fig.8. Distribution of the deceases through suicide according to their cause (4)

From the same standpoint, the year 2007 has a similar representation to the year 2006: 38 multiple traumas, 37 cerebral traumas, 10 abdominal traumas and 5 thoracic traumas.

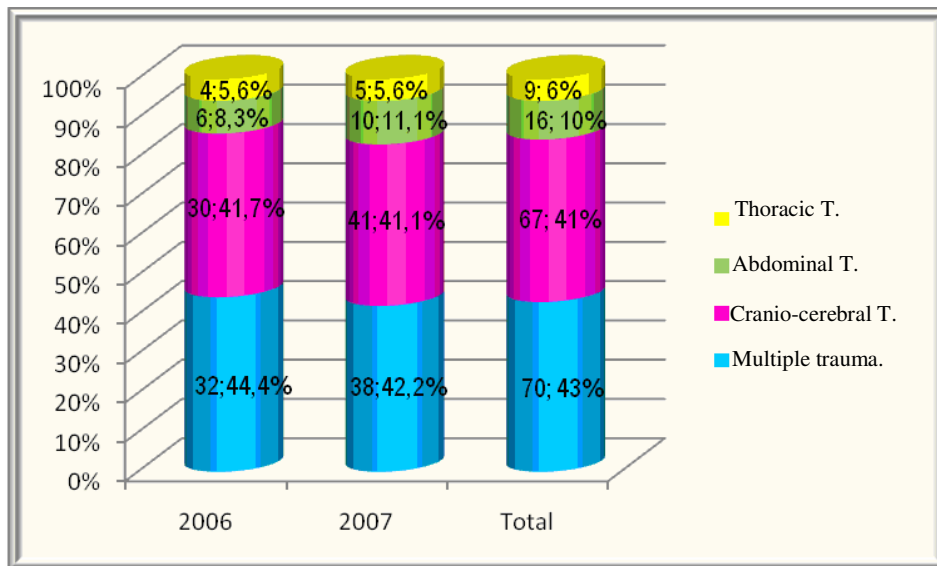


Fig.9. Distribution of violent death under topographical aspect (4)

The distribution of the non-violent-cause intra-hospital deceases turned into medico-legal cases for the year 2006 and the year 2007 point out as main decease causes to myocardium-sclerosis, bronchopneumonia, strokes and acute myocardium infarct.

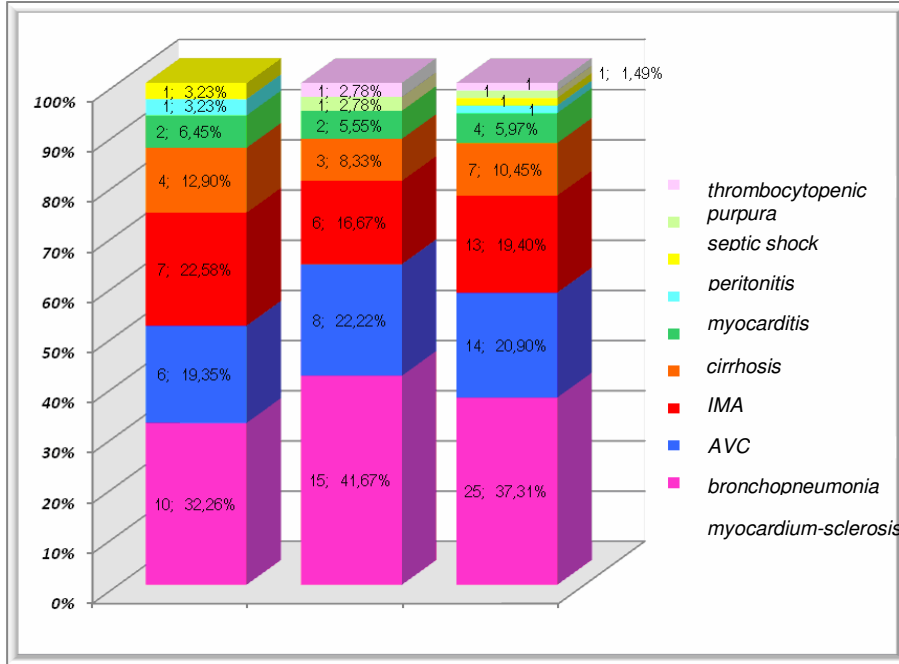


Fig.10. Non-violent cause intra-hospital deceases (4)

Relating to the overall non-violent deceases over the two analyzed years, there may be stated that the main causes of non-violent death are represented by: cardiovascular diseases (50%), cerebrovascular diseases (20%), pulmonary diseases (20%) and other diseases (10%).

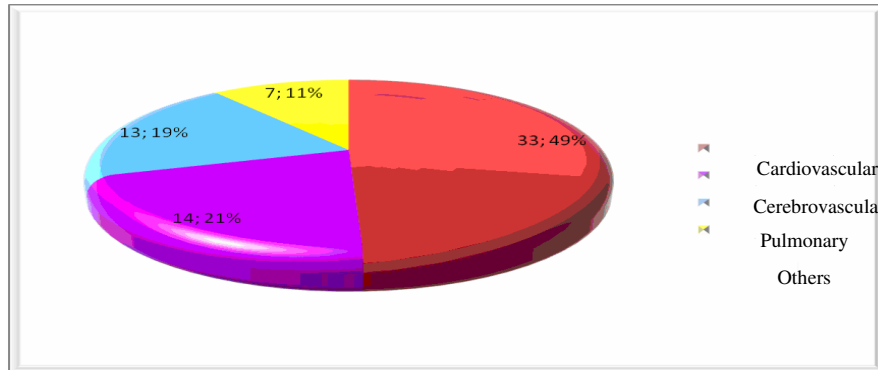


Fig.11. Main causes of non-violent cause intra-hospital deceases (4)

The data obtained through relating the type of death to sex and to the main age categories are particularly interesting. The highest percentage of violent deceases is registered at the age group of 19-40 years, followed by the age group of 41-60 years and by the age group of 61-90 years.



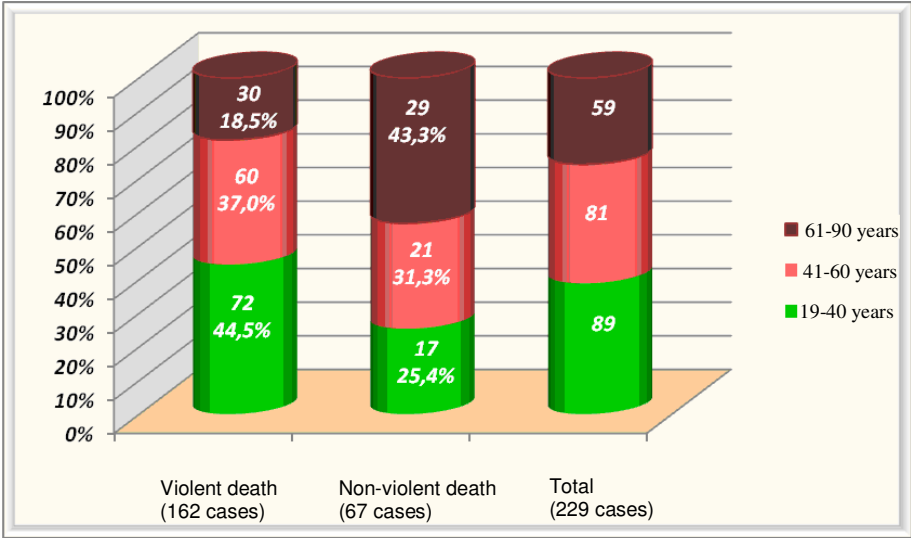


Fig.12 Distribution of violent deceases according to age and death type (4)

From the distribution according to the patients' sex, of the violent deceases registered over the 2 years, there may be noticed a marked predominance in males compared to females.

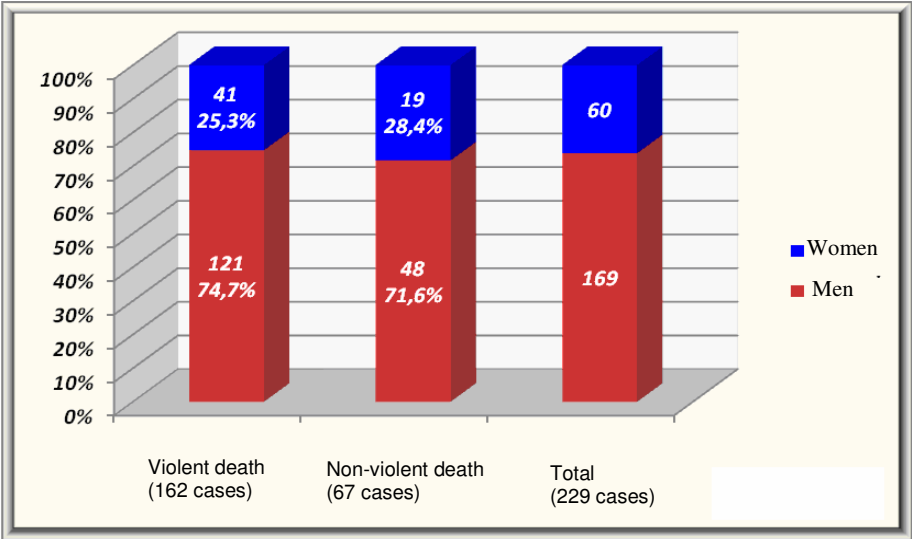


Fig.12. Distribution of the deceases according to sex and death type (4)

5. Discussions

The undertaken study shows that from the overall intra-hospital deceases, 11.2%

cases were finalized by the medico-legal institutions, the concerned autopsies being effectuated at the prosecuting bodies' written solicitation (fig. 2).

Out of these medico-legal-turned cases, only 70,74% were through violent death, produced under the action of an external traumatic agent, in various circumstances, the rest of 29.26% being non-violent deaths, the decease being of pathological nature, but falling under the suspicious deaths, for different reasons (fig. 5).

Approximately half of them, respectively 49% from these non-violent deceases proved to have been produced by cardiac causes (myocardium-sclerosis, acute myocardium infarct and myocarditis), 21% had cerebrovascular causes (all through hemorrhagic stroke with ventricular inundation), 19% had pulmonary cause (all through bronchopneumonia) and 11% had other causes, represented through cirrhosis, peritonitis, septic shock, thrombocytopenic purpura (fig. 10). These data confirm those in the specialized literature, which states that cardiovascular diseases rank first as regards the adults' decease causes, followed by the cerebral and pulmonary ones.

As regards the violent-cause deceases, there may be noticed that, mostly, respectively in a percentage of 85,2%, the injuries were accidentally produced, in different circumstances, only 9,25% being caused by suicide and 5.55% by hetero-aggression. Among the accidental ones, half of them, respectively 49.27%, were provoked by road accidents, 34.78% by various household accidents and 15.95% by labour accidents (fig. 6 and 7).

The distribution of both violent and non-violent deceases, according to sex, shows a clear predominance in males, in proportion of 74.7% for the violent ones, as compared to 25.3% in females; and in proportion of 71.6%, in males, for the non-violent ones, as compared to 28.4% in females. This male prevalence, constantly present in medico-legal casuistries, for both types of decease, seems to keep also in the case of the deceases occurred during hospitalization and turned into medico-legal cases (fig. 12).

## 6. Conclusions

The data obtained in the study show a clear interference between the clinical and medico-legal casuistry, as regards intra-hospital deceases, not only in violent-death but also in non-violent-death cases, caused by certain medical conditions.

This proves that any decease, even without clear traumatic antecedents, being likely to occur during hospitalization, after whatever interval, may turn into a medico-legal case, the respective person's death being suspicious from certain more or less good reasons, which require specific researches from the prosecuting bodies.

As such, knowing the conditions and the circumstances in which intra-hospital decease of whatever cause may turn into the object of the criminal research, is of the utmost importance and usefulness to any clinician. This, because the clinician physicians are compelled to collaborate for determining the juridical truth in such cases, starting with notifying the prosecuting bodies in due time upon the existence of such a case, up to correctly, duly and completely registering all existing data in the cause, within the medical documents, especially in the patient's observation chart.

## References

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