

Malpractice claims associated with infectious causes

Evangelos Vasalos¹, Abdo Salem², Sorin Hostiuc^{2*}

Abstract: Medical errors leading to malpractice claims have had a continuously increasing frequency in the last years in Romania. In this study we try to analyze the characteristics of malpractice claims associated with infectious pathology. *Material and method.* A study was conducted on 83 cases with malpractice claims, on a four year period. Thirty cases included in the causal chain an infective process (MOSF as a terminal event was excluded). *Results.* Cases with associated infectious pathology had a lower mean age, a male predominance, an increased severity and mortality. Its presence however wasn't associated with a significant increase in medical errors frequency. *Conclusions.* Infectious processes, even if are associated with an increased severity and mortality, don't have a stronger association with the positive identification of medical errors compared with medical treatments not associated with infectious pathology during their course.

Key words: malpractice, medical errors, infectious related claims, infectious malpractice

Malpractice claims associated with infectious disorders are often cited in scientific literature, and are especially caused by the development of nosocomial infections [1-6], incorrect diagnosis of major emergencies with septic complications [7-9], and neonatal/obstetrical pathology [10]. Medical errors can be grouped into commissive (in agendo), when they are the result of incorrect medical acts, omissive (in omitendo) when they are caused by inaction, technical (in eligendo) when they are the result of incorrect choosing of medical techniques or improper delegation, and correlative (in vigilando) when are the result of incorrect professional relation with another physician(s).

In Romania our previous studies revealed that the most often find accusations are omissive (usually associated with surgical specialties) and commissive (in both surgical and medical specialties) [10-13]. Another classification divides medical errors according to their type in dolosive (molest, insult, defamation, outrage), by negligence, superficiality, against medical humanity, against common caution, ignorance, incompetence, refusal to treat, refusal to answer to a request to treat, patient abandon, etc. In this study we tried to determine the types of medical error claims associated with infectious pathology and to find out their main characteristics.

Material and method

Eighty three malpractice claim cases were obtained from the Archive of the National Institute of Legal Medicine Bucharest between 2007-2010 (only cases with a decision from the Superior Medical Legal Council – CSML were included).

*1) Corresponding author; Professor, MD, PhD, National Institute of Legal Medicine "Mina Minovici", Sos. Vitan Birzesti 9, Sector 4, 042122 – Bucharest, Bucharest, Romania, e-mail: danderme@legmed.ro

2) University of Medicine and Pharmacy "Carol Davila"

3) MD, National Institute of Legal Medicine "Mina Minovici", Bucharest

4) Associate Professor, MD, PhD, Chair of Legal Medicine, University of Medicine and Pharmacy "Carol Davila"

5) MD, PhD, PI, Senior Lecturer, Chair of Anatomy, University of Medicine and Pharmacy "Carol Davila"

For each case a total number of 42 parameters (age, sex, pathology, cause of death, type of error, type of claim, medical errors according to various committees from the medical legal system, etc.) were quantified and added into a SPSS database. Thirty cases contained an infectious event in the causal chain leading to the malpractice claim (cases in which MOSF was a terminal event were excluded).

Results

Mean age of person accusing a medical error was 32 years with a median of only 30, suggesting a high prevalence of obstetrical and neonatology cases. 39 were males and 44 (53.33%) were females. A total number of 30 cases included in their causal chain an infectious cause, of which fifteen were considered to be determined by or associated with a medical error. Sex distribution reveals an increased frequency of infectious related claims (IRC's) in males (17 cases, accounting for 42.5% of total males number) compared to females (13 cases, 39.23%), a difference significant at a $p=0.25$ level ($\chi^2=6.635$)

An infective process was the initial cause, directly linked with the accused effect in 53.33% of cases, an intermediary cause in the causal chain in 3.33% of cases, an additional element superposed on the causal chain in 10%, was the effect of an organic cause in 10%, the effect of a iatrogenic cause in 10%, and the effect of a combination of causes in 13.33% (see Figure 2).

A medical error was identified in 15 out of 30 cases with an infective process present in the causal chain. In 19 cases the physicians were accused with omissive claims, in 4 with commisive claims, one was in vigilando and the rest were undetermined/multiple. In seven cases the physicians were accused of not acting in an emergency, in another 7 were accused of ignorance, in 4 of superficiality, and in the rest of other causes .

The presence of an infectious process increased the gravity of the case – by analyzing the structure of cases in which an infectious process was present we found a highly significant positive correlation between it and death (Kendall's tau=0.392, significant at a $p=0.01$). Mean age in patients with an associated infectious disease was slightly lower than in patients without it (30 and 33 years respectively), and the distribution is moderately homogenous, slightly platikurtic (kurtosis=0.833 in positive cases). See Figure 3 and Table 1.

Sex distribution of IRC's

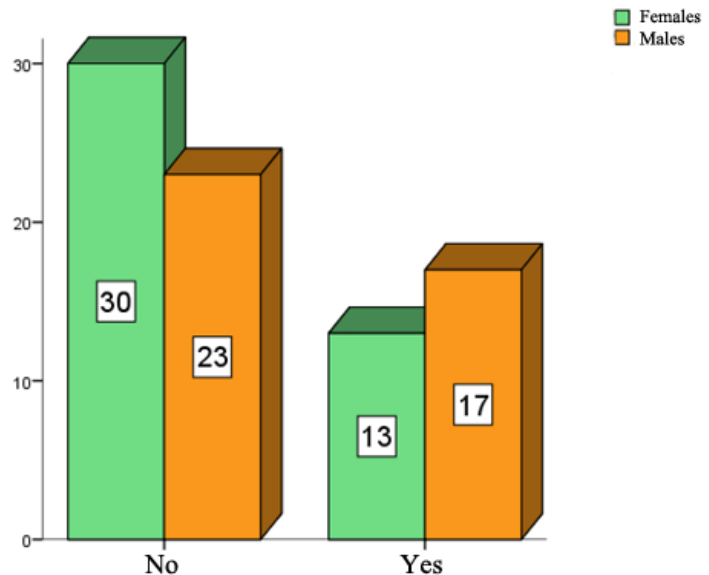


Figure 1. Sex distribution of infection related claims (IRC's)

Infectious causes

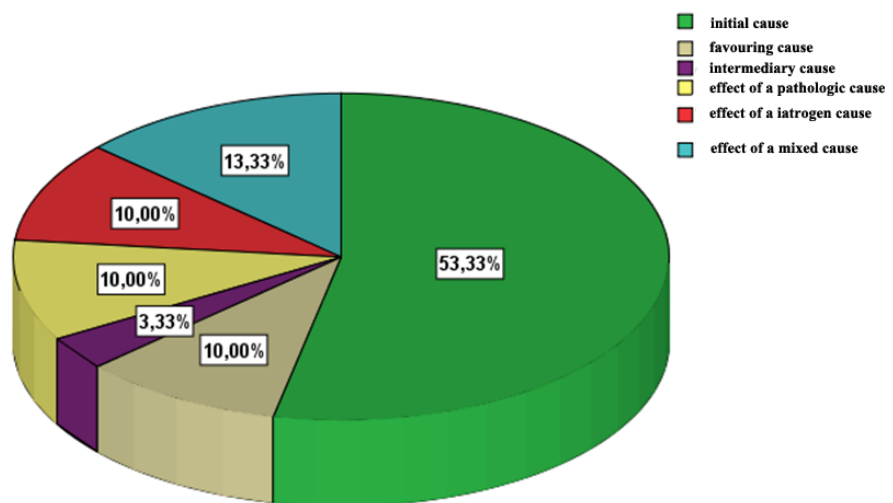


Figure 2. Placement of the infectious process in the causal chain

Table 1. Casuistry. Descriptive statistics

Infection present	Mean	Median	N	Std. Deviation	Kurtosis	Skewness
No	33,2174	31,5000	46	22,29590	-,912	-,039
Yes	30,4667	30,0000	30	22,10747	-,545	,513
Total	32,1316	30,0000	76	22,11506	-,865	,169

Even is the severity of the infectious process was found to be higher in elderly, the distribution wasn't skewed towards increased ages due to a high number of acute appendicitis, respiratory and obstetrical infections, present in younger people. Death occurred in 24 out of the 30 cases associated with infectious occurrences, main direct causes of death being MOSF with 46.51%, acute respiratory insufficiency with 20.93%, acute cardio-respiratory failure with 16.28%, hemorrhages with 11.63% and CNS pathology in 4.65%.

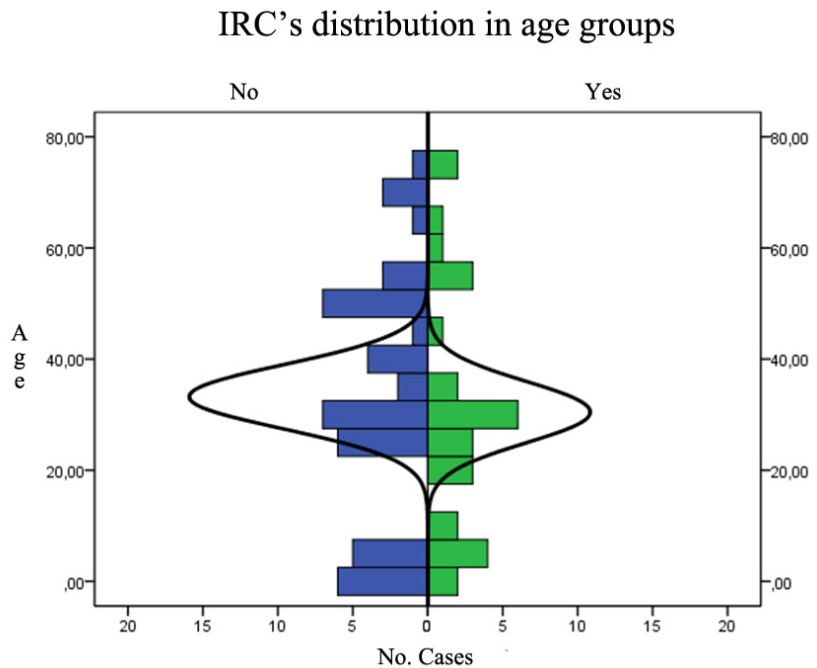


Figure 3. Age distribution of infection related claims (IRC's)

Discussions

Most malpractice claims associated with infectious events were caused by an initial infectious cause (53.33%); this infectious event was either not recognized in due time or was not treated correctly, leading to severe (usually lethal complications). In a former article we proved that in Romania a malpractice claim is usually determined by a very severe complication of treatment or (most often) death[11]. In 24 out of 30 cases with IRC's, the patient died, most cases being associated with unrecognized medical emergencies like acute appendicitis, respiratory infections in young children, acute meningitis, obstetrical infectious pathology, etc.

A second group of IRC's are those in which an infectious pathology (IP) appeared during the course of another disease, as a complication and which, during a normal medical surveillance shouldn't appear. This IP was neither enough nor sufficient to determine the effect, but their presence augmented that effect. For example an infected suture leads to increased wound healing time. If this IP appears as a consequence of an inadequate medical attitude the physician can be made responsible. In the above example if the infective process leads to an esthetic prejudice and this can be linked with a medical error the physician can be made culpable. This type of circumstances occurred three times in our study.

A third group of IRC's are those in which the IP appears as an intermediary link between a non-infectious cause and effect. An example from our casuistry is represented by a stab wound in the thigh which is incorrectly treated in the emergency room, leading to the development of an IP which finally lead to amputation. In this situation the IP wasn't the initial cause but without it the effect wouldn't have happened. Last three groups consisted of cases in which the IP appeared as a result of a non-infectious, iatrogenic or mixed pathology (33.33%).

The appearance of medical errors (according to CSML decisions) isn't significantly influenced by the presence of IP's; even if they are present, if the physician isn't directly responsible or if they are

a known complication of the disease (such as infection in burned victims), a malpractice claim directed against the physician is considered not to be culpable in accordance with national Law No.95/2005 regarding the reform of the sanitary system. A malpractice claim can however be issued against the hospital.

Conclusions

Infectious processes, even if are associated with an increased severity and mortality, don't have a stronger association with the positive identification of medical errors compared with medical treatments not associated with infectious processes during their course.

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