Is it time for international guidelines on physical restraint in psychiatric patients?

A. Maiese¹, M. dell'Aquila¹, S.Romano¹, A. Santurro¹, A. De Matteis¹, M. Scopetti¹, M. Arcangeli³, R. La Russa^{1,2}

Abstract

The freedom-restraining measures used during Involuntary Health Treatment (IHT) are highly criticized in the medical community. Physical restraint techniques are currently largely used worldwide in Psychiatry. The use of restraints against the patient's will can be considered a serious intrusion of basic human rights and even an act of violence against the patient. In all cases, the restraint should not lead to injuries or damage to the patient's health and should be implemented with a respect of the human rights and dignity. Generally, the use of restraint should be considered as a last resource, when all the other methods have failed. Since it represents the principal freedom-limitation measure, it should be constantly monitored by physicians who apply these methods.

The case of a 58 years-old white male, affected by chronic schizo-affective disorder and cannabinoid dependence, was under involuntary medical treatment as a consequence of antisocial behavior. During the IHT he suffered firstly a pharmacological restraint and then a physical restraint in order to suppress a slight state of agitation. The patient was completely blocked to the bed for more than 80 hours and died after three days of hospitalization.

The aim of this study is to evaluate the suitability of restrictive methods for psychiatric patients in order to establish specific rules to prevent abuse of restraint techniques and even to help physicians to treat psychiatric patients. *Clin Ter 2019; 170(1):e68-70. doi: 10.7417/CT.2019.2110*

Key words: Medical liability, Forensic Psychiatry, Legal Medicine

Introduction

The ethical and legal issues concerning Involuntary Health Treatment (IHT) for psychiatric treatment are well described in European studies (1,2).

The freedom-restraining measures used during involuntary medical treatment are highly criticized in the medical community (3). The main critics are directed especially to "physical" restraint that may result in severe complications for the patient. Physical restraint techniques are currently

largely used worldwide in Psychiatry, albeit with considerable differences in duration and frequency (4,5).

In the Italian jurisdiction, the consent of the patient is required in order to make the restrains legally possible (6). The use of restraints against the patient's will can be considered a serious intrusion of basic human rights and even an act of violence against the patient. However, in situation of effective necessity, restraint without explicit consent may occur (7).

In these cases, in Italy, IHT is ordered by the mayor or by a delegate and it is authorized by the tutelary judge who is entrusted with the jurisdictional safeguard of such treatment. Involuntary treatment can be done in the General Hospital Psychiatric Stations and also in the Mental Health Centres. The maximum duration of a standard IHT is 7 days, unless the mental capacity of the patient is restored. In these cases, the physician may interrupt the IHT after specific request by the patient. Conversely, an IHT may exceed 7 days, and in these cases as well as in cases of further extensions, the psychiatrist must follow the above-mentioned procedure (mayor + judge) and give a written explanation for any such extension.

In all cases, the restraint should not lead to injuries or damage to the patient's health and should be implemented with respect of human rights and dignity (8,9,10). Generally, the use of restraint should be considered as a last resource, when all the other methods have failed. Since it represents the principal freedom-limitation measure, it should be constantly monitored by physicians who apply these methods.

Case presentation

We present a case of a 58 years-old white male, affected by chronic schizoaffective disorder and cannabinoid dependence, who was under involuntary medical treatment as a consequence of antisocial behavior. During the IHC he suffered firstly a pharmacological restraint and then a physical restraint in order to suppress a slight state of agitation. The mechanism of physical restraint concerned the use of

Correspondence: S. Romano, Viale Regina Elena, 336, 00161 Rome (RM)E-mail: s.romano@uniroma1.it

¹ Department of Anatomical, Histological, Forensic and Orthopaedic Sciences, Sapienza University of Rome; ² IRCCS Neuromed,

³ Department of Life, Health and Environmental Sciences, University of L'Aquila, L'Aquila, Italy

bed-sealed straps and belts that blocked the patient's wrists and ankles. During the physical restraint the patient tried several times to get free, removing medical infusion drip and urinary catheter. The medical devices were repositioned by physicians several times, and a periodic control of the straps and belts was performed too. Approximately 2000 cc of intravenous glucose and saline solution were administered to the patient in three days of hospitalization: three 500 cc of saline solution and one 500 cc of intravenous glucose, resulting in progressive dehydration, breathing problems and deterioration of health conditions. In addition, despite the high ambient temperature (since it happened in August), the patient's room was devoid of air conditioning system, resulting in a serious threat to the patient's health. The patient was completely blocked to the bed for more than 80 hours and died after three days of hospitalization. At the external examination, on the body multiple widespread bruises and abrasions were present, especially on the wrists and the ankles as result of the long-term mechanical restrains. At the autopsy, no injuries were present. The death was due to an electrolytical imbalance caused by an extreme dehydration, which led to a fatal cardiac arrhythmia. Sudden deaths in psychiatric patients are described in literature (11,12,13), but no suggestive features were found in our case.

A full video recorded by a security camera placed inside the patient's room for the entire period of the hospitalization is available online on several Italian National news channels, showing the complete neglect of medical care of the patient.

Discussion

The case we reported represents a unique case of restrain related death. The peculiarity of the case is the extreme duration of the physical restraint suffered by the patient, far greater than the national and international average. In our case, *the duration of the restrains was of 84 hours*, which appears to be the longest restraint period ever reported in the literature.

Severe injuries and even death may be caused by physical restrains (14,15), usually due to deep venous thrombosis resulting in pulmonary embolisms (16) as consequence of long-term immobilization. Direct injuries from physical restrain are usually due to the action of the not properly secured straps, that lead to abrasions, bruising, hematomas, ischemic injuries, and nervous system injuries (e.g. brachial plexus). Less commonly, death occurs due to chest compression or strangulation by straps or belts badly positioned (17,18). Severe injuries and fatal events occur also when the straps and belts are correctly secured. In these cases, injuries result from fall or blunt trauma as consequence of release from restraints, and inappropriate monitoring of the patient by doctors is the main problem. Moreover, psycho-emotional stress from an involuntary restrains may arise, resulting in severe impact on the patient's social life, and even increasing the risk of a post-traumatic stress disorder (19).

No guidelines about restraint of psychiatric patients are currently available, but local recommendations advise to use it only in exceptional cases, advising physicians to firstly use the less restrictive alternatives (20,21). The criteria for using

involuntary treatment are well described in the White Paper of the Council of Europe. This Recommendation identifies criteria for involuntary treatment (e.g. the person's behavior must represent a significant risk of harm to him/herself or to others; the treatment should include a therapeutic purpose; no less restrictive therapeutic alternatives are available; the person's opinion has been taken into consideration, etc.), for administering such treatment (e.g. the treatment should be proportionate to the person's state of health; it should form part of a written protocol; it should be documented; it should aim to enable earliest standard treatment of the patient; etc.) and the rights that must be guaranteed (e.g. provision of information to the person and to his/her legal representative, right to communication and visits, etc.) (22). However, despite these recommendations, the decision concerning the Involuntary Health Treatment is left to individual care institutions and the reaction of society to the needs of the mentally ill remains at best grudging and inadequate and is often abusive and humiliating.

An interesting reduction of 50% of the restrain episodes in the US was observed between 1999 and 2002, after the implementation of the rules issued by the *Health Care Financing Administration (HCFA)*. These rules require that a physician or a licensed independent practitioner makes a *face-to-face* assessment of a patient within one hour of the initiation of restraint or reclusion (23).

Conclusions

Currently, the use of physical restraint may lead to an abuse of these mechanical methods by doctors or, conversely, to a carelessness of the health conditions of the patient. Guidelines should concern the health care of the patient, with special regard to the duration of the restrains and to the effective necessity of these methods, in order to prevent undesirable consequences for the patient. It's time to establish specific rules to prevent abuse of restraint techniques and even to help physicians to treat psychiatric patients. In our case the fatal event could have been prevented by an appropriate medical conduct based on the fundamental ethical rules and the respect of human rights.

References

- Valenti E, Banks C, Calcedo-Barba A, et al. Informal coercion in psychiatry: a focus group study of attitudes and experiences of mental health professionals in ten countries. Soc Psychiatry Psychiatr Epidemiol. 2015; 50:1297-308
- Jakovljević AK, Wiesemann C. [Coercive procedures in forensic psychiatry: Current treatment practice in forensic psychiatric hospitals from a medical ethics perspective]. Nervenarzt. 2016; 87:780-6
- Kallert TW. Coercion in psychiatry. Current Opinion in Psychiatry. 2008; 21:485-9
- Kallert TW, Rymaszewska J, Torres-González F. Differences of Legal Regulations Concerning Involuntary Psychiatric Hospitalization in Twelve European Countries: Implications for Clinical Practice. Int J Forensic Ment Health. 2007; 6:197-207

- Raboch J, Kalisová L, Nawka A et al. Use of Coercive Measures During Involuntary Hospitalization: Findings From Ten European Countries. Psychiatr Serv. 2010; 61:1012-17
- Turillazzi E, Neri M, Riezzo I, et al. Informed consent in Italy-traditional versus the law: a gordian knot. Aesthetic Plast Surg. 2014; 38:759-64
- Carabellese F, Urbano M, Coluccia A, et al. Workers safety in public psychiatric services: problems, laws and protections. Clin Ter 2017; 168:e406-e14
- Niveau G. Preventing human rights abuses in psychiatric establishments: the work of the CPT. European Psychiatry. 2004; 19:146-54
- De Vita E, Chiarini M, Meggiolaro A et al. Errors in Medicine: perception of healthcare professionals in the Lazio Region. Clin Ter. 2018; 169:e120-e8
- Kingdon D, Jones R, Lonnqvist J. Protecting the human rights of people with mental disorder: new recommendations emerging from the Council of Europe. The British Journal of Psychiatry. 2004;185:277-9
- Arias LHM, Fadrique RS, García SP et al. Antipsychotics and cardiovascular risk: A case/non-case study. Psychiatry Res. 2018; 270:341-7
- Risgaard B, Winkel BG, Jabbari R et al. Sudden Cardiac Death: Pharmacotherapy and Proarrhythmic Drugs: A Nationwide Cohort Study in Denmark. JACC Clin Electrophysiol. 2017; 3:473-81

- Li KJ, Greenstein AP, Delisi LE. Sudden death in schizophrenia. Curr Opin Psychiatry. 2018; 31:169-75
- Van de Vyvere A, Dumont C. [Physical restraint and procedure]. Rev Med Brux. 2013; 34:368-75
- Pötsch L, Fink T, Ogbuihi S, et al. Accidental death of disoriented persons in long term care facilities. Archiv für Kriminologie. 2004; 214:19-29
- Cecchi R, Lazzaro A, Catanese M et al. Fatal thromboembolism following physical restraint in a patient with schizophrenia. Int J Legal Med. 2012; 126:477-82
- Berzlanovich AM, Schöpfer J, Keil W. Deaths Due to Physical Restraint. Dtsch Arztebl Int 2012; 109:27–32
- Dube A, Mitchell E. Accidental strangulation from vest restraints. JAMA 1986; 256:2725–6
- Fugger G, Gleiss A, Baldinger P et al. Psychiatric patients' perception of physical restraint. Acta Psychiatr Scand. 2016; 133:221-31
- Scudellari P, Valente S, Maldini M, et al. The missing link between philosophy and psychopathology. Clin Ter. 2018; 169:e135-e9
- National Institute for Clinical Excellence (NICE). Clinical
 practice guidelines for the violence: the short term management of disturbed/violent behaviour in psychiatric in-patient
 settings and emergency departments. 2005
- Harding TW. Human rights law in the field of mental health: a critical review, Acta Psychiatr Scand Suppl. 2000; 399:24-30
- 23. Currier GW, Farley-Toombs C. Datapoints: use of restraint before and after implementation of the new HCFA rules. Psychiatr Serv. 2002; 53:138