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Letter to Editor. Thromboembolic complications in psychiatry from the perspective of legal claims

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Reading of the article written by the team form Gdansk *Risk and prophylaxis of venous thromboembolism in hospitalized psychiatric patients. A review* [1] prompted us to share some of our own experiences and remarks regarding thromboembolic complications in psychiatry practice.

As an interdisciplinary team of experts, collaborating with the Department of Forensic Medicine and Forensic Toxicology of the Medical University of Silesia in Katowice, we often draw up opinions on cases with a suspicion of a medical error due the patient's sudden death from the pulmonary embolism during or shortly after application of handcuffs or restraining belts. Post-mortem examination (autopsy), requested by the prosecutor's office, is performed to explain the cause of death, which is a subject of doubts of close relatives. Autopsy may raise doubts if appropriate prophylaxis of venous thromboembolism (VTE) was not applied.

This problem was presented during the VI International Scientific and Training Conference "New and Really New Mental Disorders" in Wisla in 2012, but it did not draw much interest of participants [2]. We find it highly precious that the authors from the Medical University of Gdansk raised this issue important for clinical and opinion-making practice.

Complications of VTE during the use of of restraining belts in patients suffering from mental illness are rare and, unfortunately, diagnosed too late. Their occurrence correlates with a use of certain psychiatric drugs, as it was pointed out by the authors of the discussed work [1]. For example, clozapine increases the risk of fatal pulmonary embolism by more than fivefold [3, 4]. Therefore, it is recommended to avoid physi-

cal restraining of the patients taking this medicine. If restraining belts are necessary, striving for optimal control of the clinical condition is recommended, as well as using the restraining belts for the shortest periods of time or implementation of anticoagulant prophylaxis with one of low molecular weight heparins [5, 6]. It was shown that the greatest risk of 'post-neuroleptic' thrombosis exists in the first 3 months of therapy, and amisulpride seems to be the safest drug in this aspect [7]. It is worth to stress that neither recommendations, nor existing medical standards oblige psychiatrists to assess the risk of VTE before the implementation of antipsychotic treatment in hospitalized patients [5].

In the medical literature, including the medico-legal one, only a few case reports of thromboembolic complications, with or without relation to the physical restraining in a mentally ill patients, exist [8]. Farah et al. [9] described a case of a 47-year-old female patient who had been treated with clozapine for many years, and who was admitted to the hospital because of dyspnea and edema of the right lower limb. During the hospitalization pulmonary embolism was diagnosed and unfractionated heparin treatment was initiated. However, on the seventh day of the hospitalization the patient died. Clinical diagnosis was confirmed in autopsy, which also showed the presence of a thrombus in the popliteal vein. Cecchi et al. [5] presented a case of a 34-year-old man suffering from schizophrenia who was admitted to a psychiatric ward in a state of agitation and productive symptoms. Except of smoking cigarettes, the patient did not present any risk factors for VTE. Due to his aggressive behavior, restraining belts were used. After six days physical restraint was finished, but his somatic state started deteriorating. Pulmonary embolism was diagnosed and unfractionated heparin was used intravenously, unfortunately in vain. Ramírez et al. [10] presented a description of a 50-year-old man who was admitted with a severe depressive episode. He practically spent all his time in bed. He was qualified for electroconvulsive therapy and improved on the ninth day. When he started walking around the ward in few minutes he lost his consciousness. Pulmonary embolism was diagnosed and the patient was transferred to the Intensive Care Unit, where he was successfully treated.

Death from thromboembolic complications during the use of restraining belts, as the exposure of patient to imminent danger of loss of life or serious damage to health (Article 160 of the Polish Penal Code) and even unintentional death (Article 155 of the Polish Penal Code) in the aspect of legal and criminal liability (fault) of the doctor, may be the reason for initiating prosecutor's proceedings. It is worth notice that the forced restraint of the psychiatric patient is not homonymous with a movement restraint held after surgery, injury, neurological disorder or the terminal phase of the neoplastic disease. Correct physical immobilization with restraining belts does not exclude working of the muscle pump. Thus it, and thus does not cause blood stagnation in the venous system of the lower limbs, which promotes venous thrombosis. Psychomotor stimulation, which often occurs during physical restraint (so-called fight with belts), is accompanied by the stimulation of the muscle pump, and paradoxically may exert a prophylactic effect. However, it is crucial to assess the risk factors of VTE in every particular patient, e.g., by using the available clinical scales, assessing the risk, listed in the article from Gdansk, and, as in every branch of medicine – with the appropriate individualization of the care management.

Finally, we cannot agree with the Gdansk team's statement that "venous thromboembolism is a serious, often non-diagnosed, while simultaneously easy-to-avoid complication affecting the treatment and prognosis of patients with mental disorders" [1, p. 431]. Of course, the use of anticoagulant prophylaxis reduces the risk of serious complications, but unfortunately it does not eliminate it

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