

## COMORBIDITY OF DISSOCIATIVE MOTOR DISORDER WITH ORGANIC IMPAIRMENT - CASE REPORT

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### INTRODUCTION

According to the DSM-5, dissociation is defined as a disruption and/or discontinuity in the normal integration of consciousness, memory, identity, emotion, perception, body representation, motor control, and behavior (APA 2013). Dissociation is considered a defense mechanism that helps the individual in coping with traumatizing events (Baizabal-Carvallo et al. 2019). Diagnostic criteria for dissociative disorder clearly exclude organic causes. In this case report we are describing a patient who had comorbidity of organic impairment while diagnosing dissociative disorder. A 36-year-old male was admitted to the Clinic for Psychiatry, University Hospital Centre (UHC) Split, Croatia, because of difficulty in walking and involuntary movements due to constant muscle contractions throughout whole body, with predominantly intense in diaphragm and upper extremities. Motoric symptoms began several months after a cerebellar tumor surgery in 2006. Despite organic impairment due to tumor incision, after extensive somatic diagnostic processing, the organic cause of his condition has not been detected. Psychological tests conducted during the diagnosing proces have repeatedly confirmed the presence of psychogenic reaction. The patient was treated at the Clinic with psychotherapy, psychopharmacotherapy and physical therapy. After 22 days of intensive hospital treatment, the patient was discharged in improved, both, mental and physical condition.

### CASE REPORT

A 36-year-old man was admitted in December 2020 at the Clinic for Psychiatry, UHC Split, Croatia. This was his first psychiatric hospitalization. He has a negative psychiatric inheritance and orderly early psychomotor development. During schooling he presented excellent success, graduated at university and enrolled in a doctoral study. In psychiatric anamnesis patient has numerous stressful situations throughout life: suppressive growth with strict controlling and authoritarian father and overly strong attachment with mother, detection and treatment of a brain tumor, stress at work and few emotional breakups of romantic and friendly relationships. In 2006, he underwent surgical resection of pilocytic astrocytoma at left cerebellar hemisphere

and postoperatively recovered from symptoms. A few months afterward he started to manifest partial spasms. Initially, they were manifesting as mild contractions in the form of squeezing and raising the left eyebrow and left shoulder. Afterwards contractions expanded along of both hands, predominatly of left hand.

MRI brain scanning in 2007 showed scarring at the site of excision after surgery procedure but nothing reflecting possible cause of interference in his status. Neurological exam from 2014 states progression in his somatic status. The patient complains of continous lower extremities spasms, pain and fatigue after waking up. It is indicated that now he has walking difficulties. He is refered to psychiatrist for the first time because of anxiety, and panic. At 2018 psychiatrist diagnosed dissociative disorder for the first time. The presented difficulties during time have become more severe despite regular physical therapy. Walking was gravely difficult, tonic contraction of lower extremities with torso deflection could last up to a minute. Disturbances were not present during sleep and while he would practice in water. Due to the severity of the symptoms and impaired functionality, the patient had to take sick leave in mid of 2019. In January 2020, the patient was hospitalized at the University Hospital center Rijeka, at the Clinic of Neurology because of deterioration of the symptoms. The brain MRI was repeated and findings indicated no changes compared to 2007, 2014, and 2019. Stiff-Person syndrome and paraneoplastic syndrome were excluded. Neither organic cause of the patient's condition was discovered nor it could be associated with existing organic impairment. Last psychopharmacological therapy before admission to our Clinic was olanzapine (5 mg/day), clonazepam (6 mg/day) and zolpidem.

During the admission to the Clinic in December 2020. psychomotor tension, depressive mood, anxiety, fixation on somatic difficulties stood out in the mental status. Somatic status presented continous generalized tonic contractions of the face, upper and lower extremities with deflection of torso. Presenting clinical features made speech and gait aggravated. He was not under the influence of psychoactive substances. SARS-CoV-2 infection was excluded. It was observed that symptoms intensified in the presence of other persons, especially medical staff. Patient was treated with psychotherapy,

psychopharmacotherapy and physical therapy. Neuro-psychological testing was repeated. It validated the psychogenic reaction and tendency to somatization, with anxiety-depressive symptoms; as in the previous tests. The patient was discharged from the Clinic in an improved condition with recommended therapy: venlafaxine (375 mg/day), fluphenazine (1.25 mg/day), olanzapine (10 mg/day), lamotrigine (100 mg/day), quetiapine (800 mg/day, XR) and continued treatment as outpatient with psychotherapy. Upon admission to the hospital, the CGI-S scale was 7, and after demission the CGI-I scale was 1 and the CGI-E index was 4.

## DISCUSSION

Dissociative disorders are rare, poorly researched, and quite often unrecognized. In presented case, 8 years have passed from the onset of symptoms to the diagnosis. The common feature of dissociative disorders is a partial or a complete loss of the normal integration between the sense of identity, memories of the past, sensory impression and control of voluntary movements (American Psychiatric Association 2013; World Health Organization 1992). Both diagnostic classifications - ICD-10 and the classification of the American Psychiatric Association – DSM, unequivocally require that the diagnosis of conversion / dissociative disorder should be stated only after excluding active psychoactive substance use, neurological disorders and disorders associated with somatic conditions (Koźmin-Burzyńska et al. 2015). Despite surgery of cerebellar tumor and the clinical picture of neuromuscular disease, after extensive neurological and radiological processing, the organic cause of psychological difficulties presented in our patient was ruled out. According to the ICD-10, dissociative disorders have a psychogenic origin and are closely related with traumatic events, unmanageable and intolerable situations, or with disturbed relationships with the environment (World Health Organization 1992, Koźmin-Burzyńska et al. 2015).

All of the above was present in our patient as well. He complains of pressure from his parents, especially his mother, during school, as described by Jith and Narayanan (2017) in dissociative motor disorder. Psychological testing of the patient indicates anxiety, depression, severe repression and a tendency to somatic response to stress. All of this have been described in the literature as typical for patients with dissociative motor disorder (Baizabal-Carvallo et al. 2019) and represent risk factors for the development of the disorder (Sarisoj et al. 2015). The mother is extremely protective what is an example of secondary gain that supports the patient's symptoms (Jith & Narayanan 2017). Another example is the intensification of symptoms in the presence of other people, especially medical staff (Wardrope et al. 2020). All listed factors explains the importance of psychotherapy for the treatment of dissociative motor

disorder. Research gives preference to psychodynamic therapy, as more effective than other forms of psychotherapy (Baizabal-Carvallo et al. 2019). The patient in our case was provided with supportive and gestalt psychotherapy.

There are few studies on the role and effectiveness of psychopharmaceutics in the treatment of dissociative motor disorder. Antidepressants and anxiolytics have been shown to be most effective (Voon & Lang 2005). There is increasing debate about the risks of using benzodiazepines and they have not been used in the treatment of the patient (Hirschtritt et al. 2021). The results suggest that among antidepressants, venlafaxine shows the highest efficiency, especially because of the effect on the physical symptoms, with accent on pain (Kroenke et al. 2006). Further, the patient was treated with quetiapine and olanzapine, as antipsychotics with antidepressant activity (Šagud et al. 2011). He was also treated with fluphenazine, D2 receptor antagonist that have been shown to be quite effective in treating dissociative motor disorder (Hinson & Haren 2006). Nevertheless, it is necessary to emphasize that there are doubts about use of medicines listed above because of the risk for drug-induced movement disorders and general medical side-effects (Hinson & Haren 2006). Few studies support the use of antiepileptics (Schrag et al. 2004) for pain relief. Lamotrigine also helps to expend bioavailability of venlafaxine.

Research emphasizes the importance of physical therapy and suggests the effectiveness of transcranial magnetic stimulation (TMS) (Baizabal-Carvallo et al. 2019).

## CONCLUSION

Dissociative motor disorder often goes unrecognized or it takes longer to diagnose. Although diagnostic criteria emphasize the exclusion of organic causes, it can also occur in comorbidity with organic impairment, as we showed. This emphasize the need for the interdisciplinary approach. The importance of psychotherapy, psychopharmacotherapy and physical therapy is obvious.

Additional treatment studies, especially regarding the most adequate psychopharmacotherapy, are needed.

### **Contribution of individual authors:**

Tonći Mastelić was involved with conception and design, data collection, manuscript preparation and writing the paper.

Boran Uglešić & Kristina Divić were involved with the patient's care, data collection, reviewed draft manuscript and manuscript preparation.

Davor Lasić was involved with conception and design, manuscript preparation and reviewed draft manuscript.

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