

Clinical-evolutive particularities and the main rehabilitation difficulties in a patient with schizophrenia who suffered from a TSCI by falling from height (affirmative suicidal attempt)- a case report

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Abstract

Introduction. Schizophrenia is a surprisingly common chronic psychiatric illness in the general population affecting 1 in 100 people worldwide. Although the symptoms widely differ from one case to another, schizophrenia is quite difficult to recognize because the patient can behave normally and appropriately in different social situations. Studies in the literature highlight that the majority of the patients with SCI and pre-existing schizophrenia have suffered accidents as a result of voluntary height adjustments. Also, 37.5% of the suicide attempts with SCI are caused by schizophrenia and depression. The main difficulties encountered in the recovery of these patients are the psychiatric manifestations. At the same time, the risk of suicide in patients with schizophrenia after suffering from SCI is higher than those with SCI without schizophrenia. Therefore, the recovery of the patients with SCI and schizophrenia is a complex process which requires the control of the psychiatric symptoms. A multidisciplinary team is required for such a purpose.

Material and method. Having the patient's consent and approval of the Ethics Committee of "Bagdasar-Arseni" Clinical Emergency Hospital, N.O. 3159/30.01.2020, the paper presents the case of a 23-year-old female patient with AIS/ Frankel B flaccid paraplegia after TVML after falling from height (affirmative through window-suicide attempt) operated on, in a polytraumatic context. The patient is known with schizophrenia and she was being monitored by a psychiatrist at the time of the accident, but she voluntarily discontinued treatment during that period. The patient was clinically and functionally evaluated, according to the standardized protocols implemented in our clinic, through the assessment scales (ASIA, FIM, FAC, QoL, Ashworth and Penn) and also paraclinically, in order to evaluate her biological reserve and her bearing availability of the recovery program.

Results and discussions. The patient presented a slowly favorable evolution (slowed down by her severe motor deficit, but also by her psychiatric symptoms such as affective ability with depressive, negative behavior, depersonalization).

Conclusions. The main difficulties encountered in the recovery of these patients are the psychiatric manifestations. Therefore, the recovery of patients with SCI and schizophrenia is a complex process that first requires the control of psychiatric symptoms. A multidisciplinary team is required for such a purpose.

Keywords: Schizophrenia, spinal cord injury, multidisciplinary, suicide attempt, rehabilitation,

Introduction

Schizophrenia is a surprisingly common chronic psychiatric illness among the general population, affecting 1 in 100 people worldwide. [1],[2] Although the symptoms widely differ from one case to another, schizophrenia is quite difficult to recognize because the patient can be have normally and appropriately in different social situations. [3] Literature studies highlight that the majority of the patients with SCI and pre-existing schizophrenia have suffered from accidents as a result of voluntary height adjustments. [4],[5]

Also, 37.5% of the suicidal attempts with SCI are caused by schizophrenia and depression. The main difficulties encountered in the rehabilitation of these patients are the psychiatric manifestations. [6]

At the same time, the risk of suicide in patients with schizophrenia after suffering from SCI is higher than those with SCI without schizophrenia. Therefore, the rehabilitation of the patients with SCI and schizophrenia is a complex process which requires the control of the psychiatric symptoms. [7] A multidisciplinary team is required for such a purpose.

2 Case report

Having the patient's consent and approval of the Ethics Committee of "Bagdasar-Arseni" Clinical Emergency Hospital, N.O. 3159/30.01.2020, the paper presents the case of a **23-year-old female** patient with AIS/ **Frankel B** flaccid paraplegia after TLSCI after falling from height (affirmatively through *window-suicide attempt*) operated on in a polytraumatic context. The patient is known with **schizophrenia** and she was being monitored by a psychiatrist at the time of the accident, but she **voluntarily discontinued treatment** during that period. She had multiple suicidal attempts (paranoid-like depressive schizo-affective disorder). The family medical history was important because the mother was diagnosed with paranoid Schizophrenia (being hospitalized in a psychiatric Hospital for specific treatment at the time of her daughter's incident).

2.1 Objective examination on admission

Good general state, afebrile, poorly represented adipose connective tissue, non-palpable and painless superficial ganglionic system, muscular system hypotonic,

hypokinetic, comminuted L2 operated fracture(Fig.1a,b), bilateral calcaneal fractures conservatively treated (Fig. 2), third degree necrotic sacral bedsore, infected with *Providencia stuartii* (Fig.3), right second degree parieto-occipital bedsore (Fig.4). Respiratory system: present bilateral bladder murmur, without rallies, SaO₂=99% spontaneously. Cardio-vascular system: rhythmic cardiac noises, without audible murmurs, BP=100/80 mmHg, AV=114 b/min rhythmically. Digestive system: slender abdomen, movable on respiration, slow bowel movement. Genito-urinary system: bilateral negative Giordano, Urinary catheter. NMAK (Neuro-myo-arthro-kinetic) examination on admission: conscious, cooperative, auto and allopsychic orientation in time and space, flaccid paraplegia-like motor deficit with L1 neurologic level, hypo-anesthesia-like sensitivity disorders with L1-L2 neurologic level, bilaterally absent patellar osteo-tendinous reflexes, bilateral Achillean osteo-tendinous reflexes that cannot be tested (calcaneal fractures), neurogenic intestine and bladder- like sphincter disorders, lack of bilateral lower limb muscular force 0/5 proximal, intermediate, distal functionally the patient maintains dorsal position. The patient was clinically and functionally evaluated, according to the standardized protocols implemented in our clinic, through the assessment scales: AIS (American Spinal Injury Association Impairment Scale), FIM (Functional Independence Measure), QoL (Quality of Life) , Ashworth and Penn, FAC (Functional Ambulation Category)

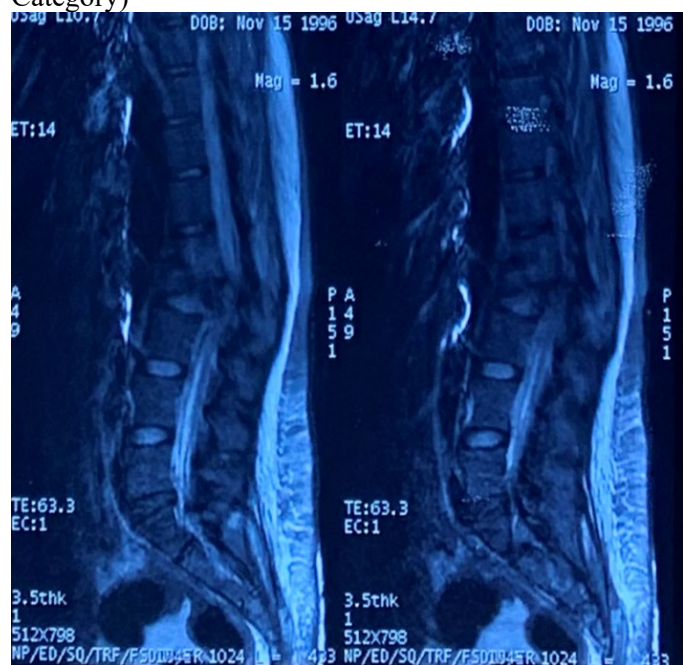


Fig. 1.a. Comminuted L2 operated fracture before surgery

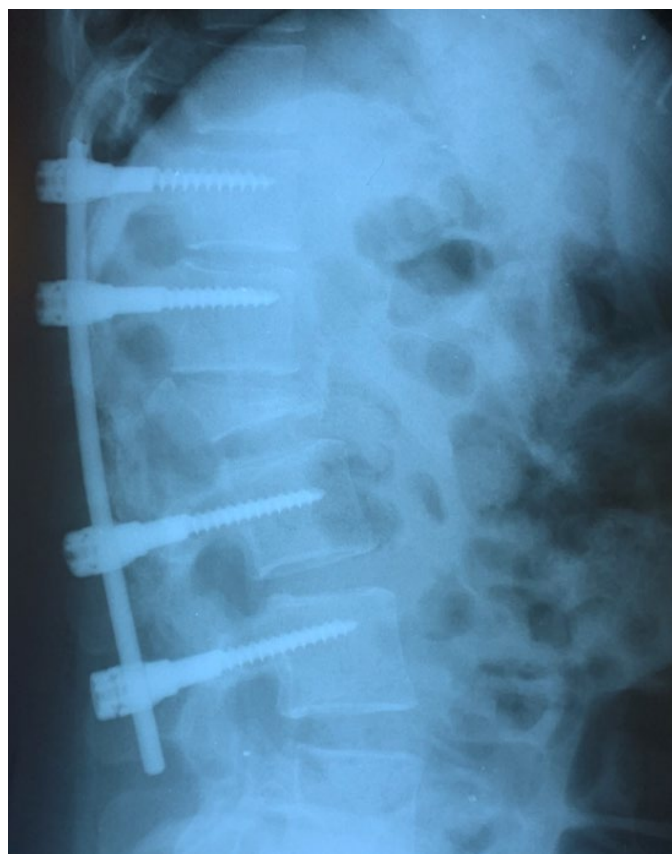


Fig. 1.b. Comminuted L2 operated fracture after surgery



Fig. 2 Bilateral calcaneal fractures



Fig. 3 The evolution of third degree necrotic sacral bedsore, infected with *Providencia stuartii*, during hospitalization



Fig. 4 Right second degree parieto-occipital bedsore

The patient was paraclinically evaluated, in order to determine her biological reserve and her bearing availability of the rehabilitation program. For this purpose, we have used both laboratory and imaging investigations.

During the hospitalization, the patient underwent a complex recovery program which included :
MEDICATION TREATMENT(anticoagulant type LMWH, neurotrophic factors, pain killers, gastric antacid, betablocker, hydro-electrolytic rebalancing, antibiotics, local antifungal/antibacterial drugs, urinary antiseptics, human albumin, antipsychotic) and
PHYSICAL TREATMENT(kinesiotherapy).

3. Evolution and clinical-therapeutic/recovery results

Afebrile, cardio-respiratory balanced throughout hospitalization. The patient presented a slowly favorable evolution (slowed down by her severe motor deficit, but also by her psychiatric symptoms such as affective ability with depressive, negative behavior, depersonalization).

4. Conclusions

The main difficulties encountered in the rehabilitation of these patients are the psychiatric manifestations. Therefore, the rehabilitation of patients with SCI and schizophrenia is a complex process that first requires the control of psychiatric symptoms, but integrated rehabilitation nursing and adequate kinesiotherapy. A multidisciplinary team is required for such a purpose.

5. Recommendations

The continuation of the rehabilitation program according to the instructions upon discharge, periodic follow-up in our clinic, therapy and psychiatric monitoring.

Author contributions.

The manuscript has been read and approved by all the authors. The authors assume entirely the responsibility regarding the un-ethical scientific conduct, including plagiarism. The authors will reveal any conflict of interest concerning the manuscript.

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