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Functional Neurological Deficit: one of the most controversial diagnosis- case report of a patient with paraplegia

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ABSTRACT

Background: Conversion disorder, also called functional neurological symptom disorder in the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5), is an illness of symptoms or deficits that affect voluntary motor or sensory functions, which suggest another medical condition, but that is judged to be caused by psychological factors because the illness is preceded by conflicts or other stressors.any case of FND is challenging and hard to manage due to overlapping of symptoms with other organic illnesses and also hard to be treated due to multidisciplinary approach needed.

Case Report: A 34 year old patient known to have schizophrenia with previous admissions to psychiatric hospital suddenly complaining of paraplegia with no sensory deficit .these symptoms persist for 6 months.

Conclusion: Long lasting symptoms is something unusually seen in conversion disorder cases where the course of illness stay for a couple of days.

Keywords: conversion disorder, functional neurological symptoms deficit, case report, paraplegia.

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Background

Conversion disorder or functional neurological disorder (FND) is a psychiatric condition in which the body's emotional and psychological stressors are converted to physical symptoms that cannot be explained by a neurological or medical condition. Psychogenic symptoms usually arise in response to stressful, traumatic events or psychiatric disorders. Common symptoms include blindness, paralysis, dystonia, anesthesia, inability to speak, difficulty swallowing, incontinence, balance problems, tremors, difficulty walking, hallucinations, and psychogenic non-epileptic seizures (PNES)[1-2]. It is important to differentiate conversion disorder from other somatoform disorders, such as factitious disorders and malingering, in which patients feign their symptoms.

Although conversion disorder symptoms are not caused by organic diseases, the symptoms are not intentional or under the conscious control of the patient[2]. Patients diagnosed with conversion disorder should seek immediate medical attention for comprehensive workup, as the symptoms may be associated with many other neurological and psychiatric disorders. Some symptoms of conversion disorder that are not sufficiently severe to warrant the diagnosis may occur in up to one third of the general population sometime during their lives. Reported rates of conversion disorder vary from 11 of 100,000 to 300 of 100,000 in general population samples. Among specific populations, the occurrence of conversion disorder may be even higher than that, perhaps making conversion disorder the most common somatoform disorder in some populations.[3].

According to psychoanalytic theory, conversion disorder is caused by repression of unconscious intrapsychic conflict and conversion of anxiety into a physical symptom. The conflict is between an instinctual impulse (e.g., aggression or sexuality) and the prohibitions against its expression. The symptoms allow partial expression of the forbidden wish or urge but disguise it, so that patients can avoid consciously confronting their unacceptable impulses; that is, the conversion disorder symptom has a symbolic relation to the unconscious conflict—for example, vaginismus protects the patient from expressing unacceptable sexual wishes. Conversion disorder symptoms also allow patients to communicate that they need special consideration and special treatment. Such symptoms may function as a nonverbal means of controlling or manipulating others.

Here, we describe a case of a patient with prolonged paraplegia.

Case Presentation

Patient demographics:

- Name: S.G
- Date of birth: 30 January 1984
- Date of admission: 24 June 2019
- Marital status: Divorced
- Education: Master degree in management
- Number of children: one boy
- Profession : journalist at madar net

clinical presentation:

34y old female known to have psychiatric history since age of 16y (Schizophrenia)

The patient mentioned the cause of her admission as follows:

While drawing on her child arm by pen ,her sister told her to stop doing this act ,claiming that this will let the child put on tattoo on early age This let the patient mad and start screaming and getting off all the things that surround her ,She stated that, her mother come in close, while she was mad so she became aggressive and hit her mother and scratch her face as she claim ,The patient added that her sister most of the time get jealous from her , and intrude in every single act she do ,She also mentioned that her mother stand with her sister and that bother her a lot.

Her mother reported that patient is very suspicious most of the time, and she is used to talk with herself with bizarre behavior sometimes.

On admission she was very aggressive

impulsive and agitated and her mental status exam was as follow:

• General appearance

– Good eye contact

– Drowsy

– Claudication

– Good hygiene

• Attitude:

– Poorly cooperative

– Agitated,impulsive

• Speech

– Low volume and tone

– Regular rate

• Mood

– Dysthymic with mood swings

• Affect

– Congruent to mood

• Thought

– Process= logical, no distraction, repeat ion, no formal thought abnormalities

– Content = persecutory delusions with some idea of reference.

• Perception

– Denies any hallucination or illusions despite some reports from her mother and psychiatric hospital staff that she is talking with herself some time.

• Cognition

– Oriented to place, time and person

– No insight

– Good calculation

– Good concentration

– Good judgment

– Abstract thinking

Course of illness:

Patient was treated by Zuclopentixol long acting form(200mg)IM with Risperidone 2mg PO, Patient complains from inability to sleep ,also she insists on denying any hallucination or delusion , refusing treatment (she spelled the drug one day),patient started acting as if the treatment is affecting her muscular strength ,during interview she acts as if she couldn't get out from chair and she insists on time she will be discharged because she can't stay hospitalized.

Patient next day stated that her drug re affect her activity and asked to be given all her medications at night, she stayed agitated denying any hallucinations but she insisted on saying that she needs to be discharged because she is a working woman, but she didn't mention that she missed her child since admission.

On 16/7/2019 Quetiapine 200mg half tab twice daily was added,next day patient asked about her son and asked to see him ,and mentioned that she is feeling better but still having low energy.

On 25/7/2019 the patient is calm, stating that she won't be discharged until the Doctor see that she is doing well, she regain all her daily activity with good energy.

Patient was stabilized on same condition stating in each interview that she won't be asking for discharge because she trusts her doctor's point of view

On 8/8/2019 medications were adjusted

Clopixol depot given

Risperidone 4mg daily

Dc Lorazepam and Quetiapine

On 10/8/2019 patient became agitated and impulsive Treatment re adjusted

Lorazepam 2mg half tab Quetiapine 200 mg half tab BID

On 15/8/2019 patient deteriorates, she complained from inability to go out of bed alone, she needed the help of nurses, accompanied with general fatigue and loss of energy. In addition, patient progressed dysthymic mood and signs of social isolation.

Blood test done(clear)

Mg supplement is given

Valproic acid 500mg one-tab daily

Patient showed no improvement and she refused to go out of bed even with help

On 9/9/2019 Sertraline was added to treatment

Dr. Hafez asked to be assessed neurologist and to be seen by physiotherapist.

Brain MRI was done (clear)

Lumbar Puncture was done(clear)

No neurological or muscular deficit.

Patient was allowed to go home for 3 days as a trial (no improvement was shown)

Patient is seen trying to get out of her chair, She was re assessed neurologically on Jan 2020, similarly, no neurological or muscular deficit, Lorazepam and Quetiapine are discontinued.

Patient became agitated when she saw her mother and was promised to be discharged if she started using a walker

From that time patient is seen between the patients using wheel chair and trying to stand

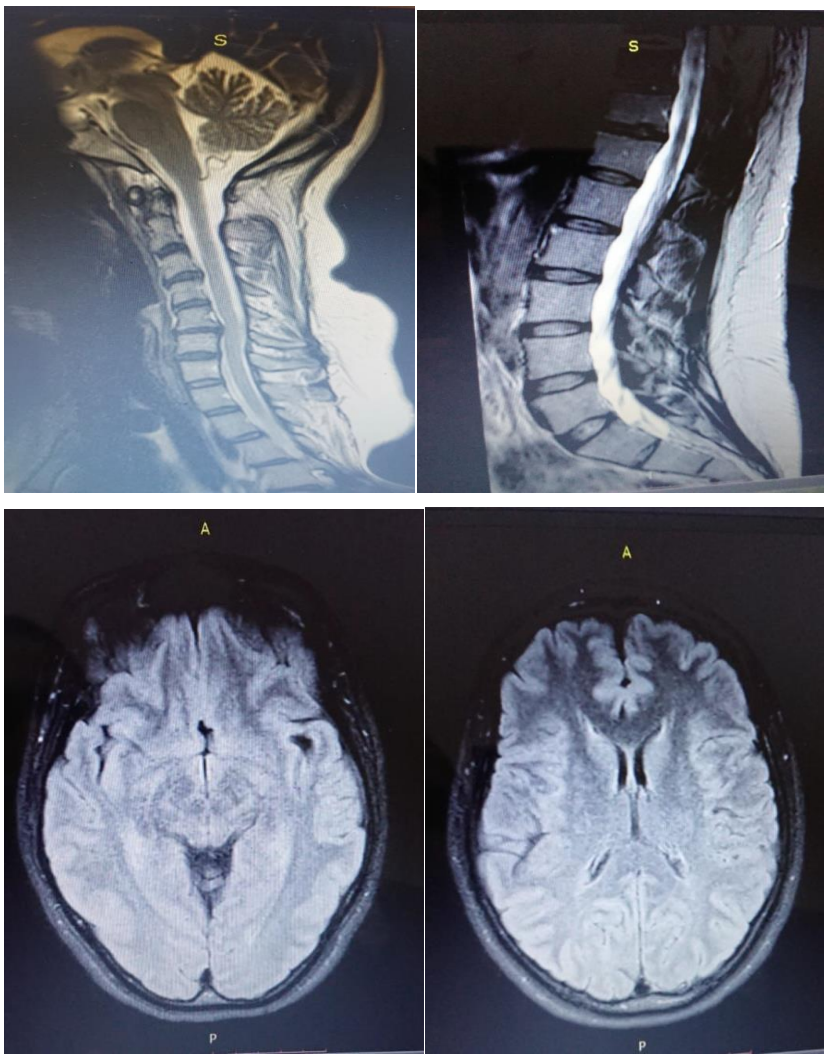
Past medical and Surgical history:

Patient is previously healthy with no surgical history noted.

- **Diagnostic approaches:** MRI Brain done and shows no abnormalities.

MRI Spine done and shows some degeneration in cervical spine, and chronic changes in dorsal vertebrae without canal stenosis or impingement of nerve roots.

Lumbar Puncture done and shows normal CSF analysis and protein electrophoresis.



- **Management plan:**

- pharmacologic: Solotik 50 mg (sertraline) 1 tab BID

Quetiapine 100 mg 1 tab BID

Lorazepam 2 mg half tab daily

Clopixol depot (zuclopentixol) 200 mg IM

- Patient **outcome and follow up:** psychotic features resolved after pharmacological treatment and patient is now calm cooperative and she denies any kind of hallucinations or delusional ideation. Otherwise she starts moving her legs and try to stand up after physiotherapy sessions.

Discussion

Patient is known to have Schizophrenia since about 18 years ago, she was stable on treatment (antipsychotics) until she had a relapse of psychotic symptoms, where she was admitted for this reason. During her residency in hospital she was mostly impulsive, aggressive with bizzare behavior. The patient complained during this period of weakness in her both lower extremities, that progressed into motor paraplegia.

Neurologist was consulted for the case

Neurological exam was done:

Mental Status:

Aler, oriented, good memory, good calculation

Cranial Nerves:

Eyes - normal vision and eye movement

Hearing - patient hear equally in both ears, hearing is normal

Smell - patient smells (coffee, peppermint, etc.)

Facial Muscles - face is equal in muscle tone and control

Tongue - patient controls tongue movement

Gag Reflex - exists

Facial Sensation - patient can feel light touch equally on both sides of her face

Shoulders - patient can raise her shoulders equally against resistance

Muscle Strength against resistance (using 0-5 scale):

Arms:

Lift arms away from side

Push arms towards side

Pull forearm towards upper arm

Push forearm away from upper arm

Lift wrist up

Push wrist down

Squeeze examiners finger

Pull fingers apart*

Squeeze fingers together*

Legs:

Couldn't lift legs up

Couldn't push legs down

Couldn't pull legs apart*

Couldn't push legs together*

Couldn't pull lower leg towards upper leg

Couldn't push lower leg away from upper leg

Couldn't push feet away from legs

Couldn't pull feet towards legs

Sensory:

Light Touch - patient can feel light touch equally on both sides of the body

Sharp/Dull - patient can distinguish between a sharp or dull object on both sides of the body Hot/Cold - patient can distinguish between a hot or cold object on both sides of the body Coordination -the patient ia able to touch her nose with her index finger of each hand with eyes shut

-the patient can rapidly slap one hand on the palm of the other, alternating palm up and then palm down in both sides.

Deep Tendons reflex- absent (Areflexia)

Brain and Total spine MRI were done showing no abnormalities, except for degeneration in vertebra that doesn't explain present symptoms.

Lumbar Puncture is done to rule out Guilan Barre or any nervous system infection.

Patient showed gradual improvement after physiotherapy courses (lifting and pushing down both legs) synchronised with mood improvement while she is on same treatment (Sertraline 100mg /day).

According to DSM 5 criteria and after excluding

all neurological and other medical conditions possible causes of paraplegia.and since patient has symptoms that affect body movement,Funcional neurological deficit(conversion disorder) is the main diagnosis of this paraplegia complain.

Conclusion

Paraplegia may be one form of functional neurological deficit disorder presentation. Conversion Disorder (functional neurological deficit), part of somatoform disorders, is a psychiatric condition in which psychological conflicts are manifested as physical symptoms. Patients with conversion disorder present a diagnostic challenge due to their complex presentation. A multidisciplinary approach to the treatment of conversion disorder, including the clinician-patient relationship, and proper communication, correct neurological evaluation, diagnosis, treatment, psychiatric therapy, psychotherapy, physical therapy, and pharmacotherapy provide the most promising results.

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Conflict of interest: “none”.

Patient Consent: Patient’s consent for the publication of this case was taken.

References:

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