
LETTER TO EDITOR

CASE REPORT

ASTASIA-ABASIA, PSYCHOGENIC OR ORGANIC? IT'S NOT EASY

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ABSTRACT

Astasia-abasia was described by Paul Blocq as a psychogenic condition; later, several brain injuries have been described for its explanation too.

We present a case of a 19-year-old woman who, after a hanging attempt, presents an astasia-abasia syndrome, initially labeled as functional, in the absence of other neurological clinic than the inability for walking and the absence of pathological findings in IMR and neurophysiological studies.

The reassessment and re-exploration of the patient questioned this diagnosis and after performing a PET scan, the presence of hypometabolism in left cerebral hemisphere, both striatum bodies, thalamus and cerebellum was discovered.

Differential diagnosis of astasia-abasia is discussed and data are provided for a reliable clinical diagnosis.

Key words. Astasia abasia, motor conversion disorder, functional neurologic disorder

RESUMEN

La astasia-abasia fue descrita por Paul Blocq como un cuadro de origen psicógeno aunque posteriormente se han descrito numerosas lesiones orgánicas cerebrales que pueden justificarla.

Presentamos el caso de una mujer de 19 años que tras un intento de ahorcamiento presenta un cuadro compatible con una astasia-abasia que inicialmente fue etiquetado como conversivo ante la ausencia de otra clínica neurológica distinta de la incapacidad para la marcha y la ausencia de hallazgos patológicos en RMN y estudios neurofisiológicos.

La reevaluación y reexploración profunda de la paciente puso en duda este diagnóstico y tras la realización de un PET TAC se descubrió la presencia de hipometabolismo hemisferio cerebral izquierdo, de ambos cuerpos estriados, tálamos y cerebelo.

Se discute sobre el diagnóstico diferencial de la astasia-abasia y se aportan datos que hagan posible un diagnóstico clínico fiable.

Palabras clave. Astasia abasia, trastornos motores de conversión, trastornos funcionales neurológicos

Dear editor,

Astasia-abasia was described in 1888 by Paul Blocq, a disciple of Charcot, as the inability to maintain a standing posture and to initiate walking despite regular motor function of lower limbs.¹

Even today, many clinical cases of these characteristics are still attributed to psychogenic causes², but brain lesions that can produce similar symptoms have also begun to be described. Thus, cases of astasia-abasia have been described in frontal lesions, diffuse cortical lesions of ischemic origin, lesions of the corpus callosum, parietal lobe, thalamus and brainstem and even in peripheral neuropathies of lower limbs and, in wide terms, all brain structure involved in movement; especially at the fronto-mesial cortex.³

CASE REPORT

We present the case of a 19-year-old girl admitted to our unit after a hanging attempt.

With no somatic history of interest, the patient had her first contact with Mental Health services at the age of 13, coinciding with parental separation and school bullying. She was cornered by a boy in a bathroom and, although she got away without major consequences, since then she was teased by her classmates. She received follow up by different professionals, even in a day hospital, with irregular adherence. The clinical case was characterized by symptoms of both psychic and physical anxiety, with somatic manifestations of digestive cut. She also presented agoraphobic symptoms, periods of sadness and repeated suicide threats that were never carried out. Being described by her family as dependent, suggestible, and emotionally unstable.

The year prior to admission, she suffered partner abuse and, due to gender violence, received institutional assistance that let her become independent. Moreover, she passed The National Conservatory of Dance admission, which is her main interest. During the weeks prior to admission, demands for her mother's attention increased as well as she made several self-harming threats related to minor frustrations.

In this context, the patient made a suicide attempt by hanging, being found by the Emergency Services in a situation of cardiorespiratory arrest that was resolved after 5 minutes of basic resuscitation.

After going through the ICU, the patient was admitted to the Internal Medicine service, where an examination by Neurology was accomplished with the unique finding of the inability to start walking. Cranial MRI and electromyography were performed, without significant findings. In addition, a psychiatric evaluation was carried out which highlighted a regressive, practically mutistic and emotionally labile state. Due to autolytic risk the patient was reassigned to Psychiatry with the diagnosis of conversion disorder.

The examination in our unit reflected an amnesia of the episode -with an ambivalent patient's gaze towards the suicidal attempt- and a considerably distressed and emotionally labile patient because of the resulting physical state. Throughout the stay, the patient stood regressive and demanding during many stages, showing frustration and anger due to her inability to walk; however, as soon as outings were allowed and physical rehabilitation was initiated, relevant improvements were achieved with a respective motivation for improvement.

Along with the difficulties in standing and inability to walk, there were trunk sway to maintain posture -even sitting-, signs of facial paralysis attributed to peripheral nerve compression and some coordination difficulties while being unawarely observed that disappeared at a deliberate examination. All this along with the history of hypoxia secondary to hanging, led to repeat complementary examinations due to serious doubts about the psychogenic origin of the case. In addition to a new MRI, evoked potentials, EEG, EMG and central motor conduction were performed; without significant findings. Nevertheless, a PET-CT was performed which revealed the presence of hypometabolism in the left cerebral hemisphere, at both striatum, thalamus and cerebellum.

After 21 days of hospitalization, her attitude improved substantially, becoming cooperative and without dysphoria, although the patient remained unable to stand upright or walk. Discharged with 50 mg of sertraline, 5 mg of chlorazepate and vitamin therapy, as well as rehabilitation treatment. Diagnosed with hypoxic encephalopathy -due to the anoxic brain lesions and their motor repercussions- and dysfunctional personality traits -taking into account her dependence, emotional instability, impulsivity and lack of tolerance towards frustration-.

The patient continued rehabilitation for the following months, improving her gait, which she performed alone at home, but still required support when going out, with

flexor difficulties in the lower limbs. There was also an improvement in a new PET-CT: practical normalization of the metabolic activity of the left hemispheric cortex respect to the previous study, much less evident at the level of thalamic, putaminal and bilateral cerebellar hypometabolism. During the psychiatric follow-up, she was affectively stable and without behavioral disorders.

DISCUSSION

The differential diagnosis of conversion disorders is complex, among other reasons, due to the lack of knowledge of their etiopathogenesis and pathophysiology despite efforts to find results that facilitate their understanding through functional neuroimaging studies.⁴⁻⁷

In addition, the classic paradigms on their causality have changed. The traditional Freudian view of repression mechanisms and sexual trauma or the presence of traumas/adverse events in childhood,⁸ lack scientific evidence⁹ and have led to the presence of stressors or conflicts close to the symptom -present in previous editions of the DSM-disappearing from the DSM 5 as a diagnostic criterion (conversion disorder is defined by: (1) one or more symptoms of impairment of voluntary motor or sensory function, (2) clinical findings show incompatibility between the symptom and recognized neurological or medical lesions, (3) the symptom or impairment is not better explained by another medical or mental disorder, and (4) the symptom causes clinically significant distress or disability),¹⁰ possibly opening the way for more presumptive diagnosis of this type of clinical cases, especially if there is no evidence of obvious organic lesion.

It is essential that diagnosis of this type is not only made on the basis of exclusion of organic pathology, but rather on the basis of a careful history and physical and psychological examination.^{11,12} In fact, the appearance of specific examinations for gait disorders is allowing a more accurate diagnostic approach.^{13,14}

Our case requires a differential diagnosis between the possibility of a functional or organic origin, which should be explored at three levels: triggers, clinical symptoms and complementary examinations.

The patient presented several traditional risk factors for the diagnosis of conversion disorders: the aforementioned history of previous traumatic events, presence of associated psychopathology, somatization symptoms and a previous dysfunctional personality; although there was no primary benefit. The history of hanging and its subsequent hypoxia were indicative of an encephalopathic condition.

From a clinical perspective, the neurological symptoms were diffuse in terms of brain topography (difficulties in maintaining posture and initiating gait, trunk instability, facial paralysis...), without a clear neurological focus at first impression, that would support the frequent concomitance of different conversive symptoms, together with the regressive attitude of the patient. On the other hand, the great concern and preoccupation with symptomatology, instead of the classic belle indifference, is noteworthy. Also remarkable was the improvement of signs while being explored rather than when attention is withdrawn, as well as the absence of unnatural postures (increased base of support, reaction to falls, phonambulist posture, genuflexion without falls...) or dramatized postures; all of which would suggest the presence of lesions at cerebral level.^{3,11}

Sokol and Espay (2016) described a series of clinical signs that frequently associate with cases of psychogenic astasia-abasia: (1) excessive display of effort while walking (e.g. huffing and puffing); (2) limited gait, with incongruent dystonia: "psychogenic toe" sign (flexion of extended first toe is made with little success but significant pain; but after vigorous dorsiflexion of toes 2 to 5, spontaneous plantar flexion of the first toe is observed) and fixed plantar flexion sign (fixed foot in plantar flexion and inversion avoids weight bearing) and; (3) incongruent ambulation: swivel chair sign (patient does not walk but does ambulate with feet in a wheelchair).¹⁴ None present in our patient.

Finally, the contradiction between structural imaging, neurophysiological and functional imaging tests. While firsts were normal, in functional imaging diffuse cortical lesions were found in the base ganglia and cerebellum, all related to astasia-abasia.³ Probably because hypoxia, although very generalized, was not intense; and the symptoms were a conjunction of the different lesions: the cerebellar lesions could justify the instability and lack of coordination; the lesions in the ganglia could result in the alterations in the regulation of the preparatory activity and control of the entire motor program.

In fact, presence of lesions compatible with the symptoms, existence of anoxia as a precipitant of the condition and its evolution, along with partial recovery with rehabilitation, incline us to propose the organic origin as the most probable in our case.

CONCLUSION

An exhaustive psychological and physical examination is essential in the differential diagnosis of conversion disorders beyond the results of complementary examinations.

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