Psychotic Episode “Cures” 15 Years of Severe Disability due to Post-Surgery Paraplegia

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Psychiatrists may encounter patients presenting with an apparent neurologic deficit that does not correlate with an objective clinical or radiographic finding. While appropriate imaging studies today have extremely high sensitivity levels for assessing neurologic lesions, it is suggested that for patients with no demonstrable neurologic abnormality a psychogenic etiology should be explored and considered.

Psychogenic paralysis defines a form of conversion disorder in which a patient presents with loss of motor and sensory function subsequent to a psychiatric stressor. When diagnosing a conversion disorder, there is always concern about missing an organic cause. The routine use of magnetic resonance imaging and computed tomography scans to evaluate the neural axis has dramatically increased subtle organic findings, lowering the probability of a misdiagnosis. Reviewing 27 studies, Stone et al. [1] concluded that the average rate of missed organic diagnosis, only 4% on average, is lower than presumed. The diagnosis of a psychogenic paralysis is by necessity a diagnosis of exclusion, yet when examining a patient with “atypical” paralysis (without objective clinical findings) a psychiatric etiology must be considered.

Several diagnostic tests are available for identifying psychogenic paralysis, such as somatosensory evoked potentials, which may result in an intact functioning cerebral-spinal axis excluding true paralysis. Although sensitive, neurophysiologic testing is not available in many facilities and is costly.

Conversion disorder is believed to be the physical manifestation of a subconscious conflict, and hypothetically lowered ego forces, as in psychotic or hypnotic states, may resolve psychogenic symptoms. Resolution of psychogenic paralysis in a hypnotic state (after administration of barbiturate agents) has been described in multiple case studies [2]. In this report we describe the case of a psychotic state that resolved after what was considered for many years as a post-surgery paraplegia, revealing its true psychogenic etiology.

PATIENT DESCRIPTION

A 52 year old, single, Orthodox Jewish man immigrated to Israel from South Africa one year prior to his hospitalization. He was brought to the psychiatric department by the local police after harassing the staff of an emergency room and was admitted against his will for observation. He was in an acute psychotic state, presenting with grandeur and paranoid delusions with a disrupted thought process. According to his brother who had immigrated with him and was taking care of him due to his alleged paraplegia, the patient had been suffering from his deteriorating mental state for 3 weeks prior to his admission and had “miraculously” gradually started walking after 15 years of being confined to a wheelchair.

Medical records showed that 15 years previously the patient suffered from motor and sensory deficits following laminectomy of D10-11 which he had undergone due to refractory back pain. The subsequent emergency operation did not improve his clinical condition, although several radiographic assessments did not show significant residual spinal pathology. Since the operation he suffered from what appeared as spastic paraplegia, with alternating urinary incontinence requiring repeated catheterizations. During the year prior to his hospitalization he received welfare due to this disability.

The patient had been obtaining and filing his numerous medical records in a meticulous manner (a known habit of patients with somatoform disorders), which provided important evidence of his various hospitalizations, assessments, medical managements, etc., due to various relentless symptoms which all ceased to exist once he became psychotic. In order to evaluate the patient’s past medical history, more than 120 pages of documented medical information were indexed and read in addition to information gathered from social services as well as from his brother. During the previous 15 years he had been observed as both an outpatient and an inpatient annually by physicians from several disciplines, including neurologists and neurosurgeons, with over 26 documented examinations in which there was no mention of any symptom of delusions, hallucinations or any presentation implying lack of judgment, until one month prior to his current hospitalization.

We assume that he was not suffering from a psychotic state at that time since it would have been apparent or at least suspected during some of his frequent medical exams. In the 15 years of numerous medical examinations his management did not include psychiatric evaluation or imaging modalities for inorganic component of
paralysis (such as fMRI or SSEP), which might have added pertinent diagnostic information. Furthermore, in the past year he was hospitalized twice in an internal medicine department for investigation of diverse neurological and gastrointestinal complaints and was evaluated using brain CT angiography, lumbar X-ray, echocardiography, urine output measurement, and blood and urine cultures. A gastroscopy failed to demonstrate pathological findings. Three weeks after hospitalization and neuroleptic treatment his psychosis state improved and no recurrence of any former neurological deficit was noted at discharge.

He explained his miraculous recovery as an act of God.

**COMMENT**

This case emphasizes the importance of a multidisciplinary approach, including psychiatric consultation, in the evaluation of every patient presenting with atypical paralysis, notwithstanding a long duration of disability. Psychological factors should be considered in the evaluation of any patient with an atypical presentation of a neurological symptom. Misdiagnosing an organic illness is one reason that may deter physicians from investigating and diagnosing psychogenic disorders, but a thorough clinical examination in combination with imaging modalities and other appropriate diagnostic studies can exclude an organic disorder, hence suggesting a psychiatric diagnosis.

Reluctance to diagnose a psychiatric condition in a patient presenting with physical symptoms may lead to further use of costly and sometimes even unnecessary invasive procedures, which may deter proper management and subject patients to significant risks [3]. Psychogenic reactions such as conversion are one of the most unstable psychiatric diagnoses, with 90% change of diagnosis (in contrast to a 7% change in schizophrenic psychosis) [4]. Interestingly, a "hysterical defense" (resembling a conversion disorder) against psychosis was theorized in the psychoanalytical literature [5], but to our knowledge this is the first publication of a conversion disorder which "converted" to psychosis.

**References**


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**Capsule**

**Mycobacterium make not-so-painful ulcers**

Buruli ulcer disease causes extensive skin lesions and can be deadly, but the lesions themselves don’t hurt, which can stop patients from seeking the appropriate care. The pathogen *Mycobacterium ulcerans* causes Buruli ulcers and also alleviates the pain. Although many scientists studying this disease thought the pathogen caused nerve damage that blocked the pain, Marion et al. show that the mycobacteria produce the mycolactone toxin, which causes analgesia by blocking the function of pain-responsive nerves. The findings could potentially help researchers develop a whole new class of painkillers.

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**Capsule**

**Bringing in the agent of your own destruction**

Cells need mechanisms to detect and disable pathogens that infect them. Tam et al. now show that complement C3, a protein that binds to pathogens in the blood, can enter target cells together with the pathogen. Once inside the cell, the presence of C3 triggers both immune signaling and degradation of the internalized pathogen. The discovery of this pathway reveals that cells possess an early warning system of invasion that works against a diverse array of pathogens and does not require recognition of any specific pathogen molecules.

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“People hate as they love, unreasonably”

William Makepeace Thackeray (1811-1863), English novelist famous for his satirical works, particularly *Vanity Fair*, a panoramic portrait of English society