Stiff-person syndrome leads to the misdiagnosis with psychiatric diseases.

Toshiyuki Nakanishi, Hiroyuki Saito, Naomi Ikuta

a Department of Primary care and General medicine, Ube-kohsan Central Hospital
b Department of Primary care and General medicine, Yamaguchi University Hospital
c Department of Neurology, Ube-kohsan Central Hospital

Introduction:
Stiff-person syndrome (SPS) is an adult-onset CNS disorder that causes progressive muscle stiffness and spasms. Diagnosis of SPS can be especially difficult in cases when patients have concurrent psychiatric diagnoses. Therefore, it is important to consider SPS and conduct the appropriate exams for diagnosis.

Case presentation:
A 52 year-old woman presented with episodic stiffening of her back and thighs trimonthly since 2014. The sudden stiffness had been worsening and resulted in multiple falls since 2016. Around the time of presentation, she was diagnosed with depression and prescribed SSRIs. Subsequently, the sudden stiffness had become painful and cramp-like, and she became unable to walk without a cane. In January 2019, she was transferred to a psychiatric clinic with muscle spasms of her bilateral thighs. She was alert, but the episodic spasms were repeatedly induced by sudden touch and noise. During her spasms, she started groaning loudly and rolling around in pain with hyperpnea, diaphoresis, and her legs extended. She had been given a working diagnosis of neuroleptic malignant syndrome. She was referred to our hospital for further examination. On examination, there was severe lumbar lordosis. Her lower limbs were held in rigid extension bilaterally although there were no symptoms affecting her upper limbs. Cranial nerve examination was unremarkable. Laboratory studies showed large elevation of serum anti-GAD antibodies and CSF was positive for oligoclonal bands. These findings led to the diagnosis of SPS.

Discussion:
Stiff-person syndrome is an important diagnosis to consider when patients present with muscle stiffness and spasms. Clinicians may misdiagnose the condition as psychiatric disorders like panic attacks and neuroleptic malignant syndrome. Clinically, it is crucial to recognize that the symptom is progressive, episodic, and induced by sudden stimulation such as touch and noise.