A woman in her 80s was found on the floor of her home. She was hypothermic, confused and had neck pain. The ambulance team observed spasms in her right leg. The patient experienced transient respiratory arrest with concomitant loss of consciousness and was admitted to hospital. A basic neurological examination on arrival was normal. She raised her arms and legs and walked with support. Functional assessment of the neck was not described in the medical records.

ECG showed rapid atrial fibrillation. She was examined with CT of the head, blood tests, urine dipsticks, arterial blood gas, rhythm monitoring and EEG on suspicion of infection, arrhythmia or epileptic seizures. CT of the head showed recurrence of a previously operated right frontal meningioma and a new left parietal meningioma. EEG two days after admission showed no epileptiform activity. The neurologist who saw the spasms during EEG recording considered dystonia. However, the frequent right-sided movements had the same flexion pattern as the inverted plantar reflex, consistent with the Babinski sign (video). The spasms continued to occur spontaneously, sometimes also on the left side, and could be triggered by light touch. The neurologist therefore suspected myelopathy. A new neurological examination found the patient to have bilaterally reduced hand grip strength, and lower limb spasticity. Acute MRI showed cervical myelopathy (image on left), and a CT of the neck revealed a dislocation fracture at level C6/C7 with compression of the spinal cord (image on right). Upon transfer to the neurosurgical department she was tetraparetic but with preserved sensibility. She underwent immediate posterior fixation and, after two days, reoperation with anterior fixation at level C6/C7. The spasms in her feet disappeared, but she had persistent distal paralysis in her legs and arms and grade 2–4/5 proximal paresis. The woman died shortly afterwards.

In acute disease of unknown cause, a thorough neurological examination should be performed, also of the neck. Spontaneous inverted plantar reflex is rare. It should raise suspicion of disease of the spinal canal, and imaging in such cases should include the spinal cord.

The patient’s relatives have consented to the publication of the article.

Ivar Otto Gjerde
Marte Helene Bjørk
marte-helene.bjork@helse-bergen.no

Ivar Otto Gjerde (born 1947) is a specialist in neurology and clinical neurophysiology and a senior consultant in the Department of Neurology, Haukeland University Hospital. The author has completed the ICMJE form and reports no conflicts of interest.

Marte Helene Bjørk (born 1980) has a PhD in neuroscience, and is a resident at the Department of Neurology, Haukeland University Hospital, and a postdoctoral fellow at the University of Bergen. The author has completed the ICMJE form and reports no conflicts of interest.