Froin's syndrome: an uncommon mimicker of Guillain–Barre syndrome

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We read with interest the article by Zimmerer et al. [1] on the clinical and treatment aspects of spinal epidural abscess (SEA). At the outset we would like to congratulate the authors on the thorough and concise review of this uncommon condition.

As noted by the authors, SEA is found in 0.2–2.8 cases per 10,000 hospital admissions, thus, requiring a high degree of clinical suspicion in their diagnosis [2]. Further as seen in the study, patients oftentimes present with non-specific back pain thus making the diagnosis difficult. The severity and the location of weakness depend on the location of the abscess; with the most common site being thoracolumbar region [3]. MRI spine with and without (wwo) contrast is the diagnostic modality of choice with all patients in the study being diagnosed by it [1].

However in early stages of SEA, MRI can remain inconclusive [4] and due to spinal shock, patient can be hyporeflexic and a sensory level might not yet have been formed. Thus, a thoraco-lumbar SEA can clinically mimic Guillain–Barre syndrome (GBS). We report the case of a 69-year-old male who was transferred from an outside facility with low back pain and progressive ascending weakness since 2 days. An MRI of the thoracolumbar spine wwo contrast done at the onset of symptoms was non-contributory. Upon admission he was paraplegic with absent knee and ankle reflexes, plantar responses were

mute and a sensory level could not be established. He had urinary retention. He was afebrile but confounding the picture, he had a bowel perforation, which required emergent surgical repair. The elevated CRP of 325 and white blood cell count of 17,600 cells/ μ l was attributed to bowel perforation and fecal peritonitis. Based on the clinical and radiological findings, a working diagnosis of GBS was made. To further confirm this, a bedside lumbar puncture (LP) was attempted 4 days after the initial onset of the symptoms, which did not yield any fluid. A fluoroscopic guided LP done at the L1–L2 level provided 5 ml yellowish fluid with a protein of 3,295 mg, RBC of 888 cells/ μ l and a normal corrected WBC consistent with a cervico-thoracic spinal block or Froin's syndrome. Repeat emergent MRI wwo of the entire spine showed extensive cervicothoracic epidural abscess with infarction of the thoracic cord. Patient underwent emergent open decompression and drainage of the abscess. Similar to the author's study, where *Staphylococcus aureus* (*S. aureus*) was the most common pathogen isolated, the abscess revealed *S. aureus* [1].

It is interesting to note that study had four patients with primary SEAs and three with secondary SEAs where an oral focus was thought to be the cause, although only one of the primary SEAs had similar pathogen as the oral one [1]. The only concern is whether a thorough search was made to identify other foci of infection. In our own case, we initially thought the bowel perforation as the source of infection but upon a more careful physical examination, patient had otitis externa, which we believe was the source of infection based on culture of the specimen.

In conclusion, we would like to re-emphasize that SEAs can have protean manifestations and a high index of clinical suspicion (especially when imaging remains inconclusive) and a thorough systematic review is necessary in its diagnosis.

Despite repeated attempts, the Editorial Office of the European Spine Journal was unable to obtain a response from S. M. E. Zimmerer et al. to this letter to the editor.

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Conflict of interest None.

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