

Cauda equina syndrome. An emergency, some unexpected severe symptoms and conservative treatment

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Abstract

An 83 years old physician, doing only office work and no exercise, presented with cauda equine, due to a large intervertebral disk hernia between L1-L2 vertebrae, after an unorthodox movement. He also had a facet syndrome, a muscular spasm in the gluteus, a small fracture in the periphery of the body of the L2 vertebra and pain in the L4-L5, due to a previous vertebral hernia five years ago. All L1-L5 left lateral area was painful. He felt an unbearable pain. He also had a degree of paralysis of the gastrointestinal (GI) and the genitourinary system. He could not take analgesics or anti-inflammatory drugs per os because of the paralysis of the GI system. His pain was relieved only by intramuscular injections of parecoximbe (a cyclooxygenase-2 inhibitor, COX-2). The disc hernia was treated without surgery. After 43 days in bed, he was able to start exercising in order to treat muscles' atrophy.

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Case Report

An 83 years old physician doing only office work and no exercise, presented with cauda equina, due to a large intervertebral disc hernia, between L1-L2 vertebrae (Figure 1). He also had as identified by magnetic resonance imaging (MRI) a facet syndrome (Figure 2), a small fracture in the periphery of the body of the L2 vertebra (Figure 3) and strictures in the spinal cord between L1-L2 and L2-L3 (Figure 4). Furthermore, his left lumbar area was painful and sings of a previous intervertebral hernia in L4-L5 five years ago were shown (Figure 5). He was under an unbearable pain. He also had partial paralysis, more of the gastrintestinal (GI) and less of the genitourinary (GEUR) system. He was treated in a private clinic and was given ibuprofen and paracetamol, per os with little or no effect on his pain. The pain was relieved only by parecoximbe (a cyclooxygenase-2 inhibitor, COX-2) 40mg, intramuscular (i.m.) injection.

All his routine laboratory tests, at that time were negative including tests for infection and cancer. After 24 hours he continued treatment at home. The severe pain was not eased by drugs per os even by 400mL celecoxime because of the paralysis of the GI system, but only by i.m. injections of parecoximbe in a dose of only 20mL its time. Furthermore, he had pain at the duodenal area which was not totally relieved by omeprazole. Within the first 13 days he had constipation, weight loss of 9kg and was unable to eat solid and cold meals.

As for the GEUR system he had polakiuria, no libido and no genital function. The patient was very sensitive to cold environment. He also had a slide upper rhinopharyngial and respiratory infection.

After 43 days he had received a total of 240mg of COX-2 with transient minor cardiovascular side effects (extrasystoles and arrhythmia).

During very severe pain he also experienced heat in his head, headache and a flash on his face.

The patient being rather desperate and in an effort to avoid surgery, on the 15th day he called a chiropractor who, as the patient said was able to restore his disc prolapse. Perhaps he technically stretched one or more muscles like lateus dorsalis. After that the patient's symptoms started to ease. The patient, after 43 days in bed, was able to exercise treating his muscles' atrophy.

On the 55th day the patient could drink cold water again and had a complete diet

although in small quantities. He distasted drinking coffee for 2 more weeks. At that time polakiurea was also over and his libido and sexual psychology were normalized.

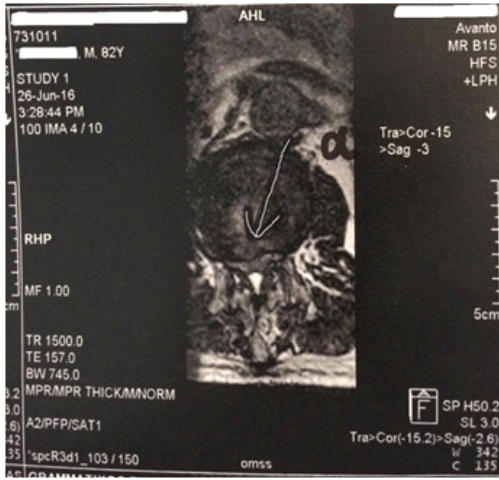


Figure 1. A large intravertebral disc hernia between L1-L2, transverse view, T2 sequence (arrow).

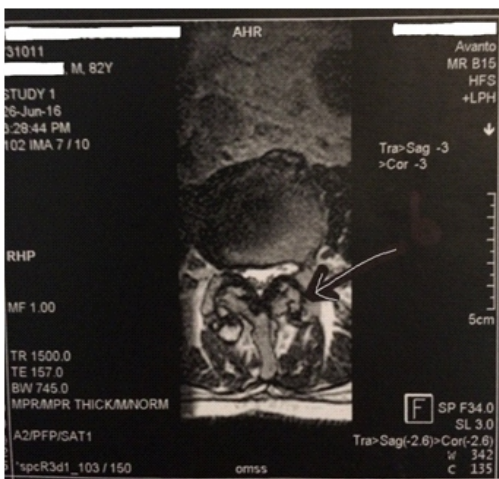


Figure 2. Facet syndrome, transverse view T2 sequence (arrow).

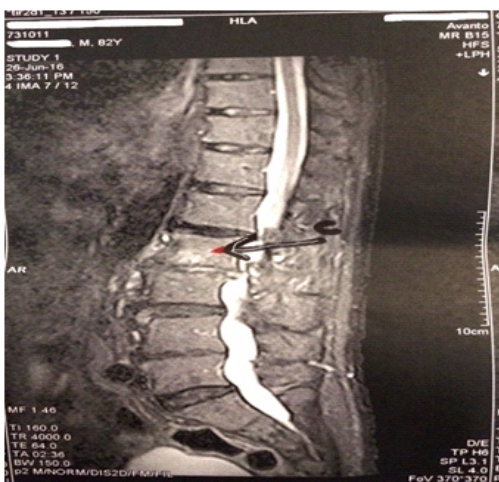


Figure 3. A small fracture at the periphery of the body of L2, saggital view, T1 sequence (arrow).



Figure 4. A spinal stenosis of a dorsal space between L1-L2 and L2-L3, saggital view, T2 sequence (arrow).

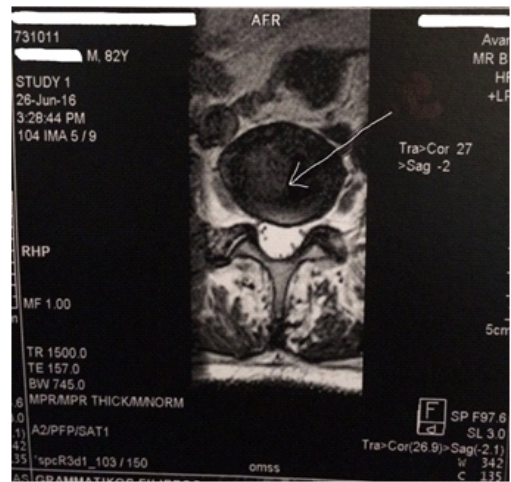


Figure 5. An old disc hernia in the L4-L5 vertebrae, transverse view T2 sequence (arrow).

Eighty days after the onset of the syndrome, the patient was healthy again. He was advised to have enough rest while maintaining his previous activities, avoid dangerous movements [1] and have a «hard brush» like massage.

Discussion

The incidence of cauda equina is between 1 in 33,000 to 1 in 100,000 [2]. The interesting parts of this case report are: a) That the large dischernia appeared after the patient was working hard, while sitting in a hallow chair and bending his back. b) The symptoms of paralysis and recovery of the GI and the GEUR tracts. c) His sensitivity to cold. d) The unorthodox intervention of a chiropractor, although this syndrome is considered a medical emergency. e) His cerebral reaction with a flash. The patient had memory disturbance for about 3 months after the onset of the syndrome. It may be of interest to find out whether at the time of the flash the brain secreted endorphins.

Cauda equina may also be caused by tumors like lymphomas or by traumas [3]. In such cases diagnosis may be difficult.

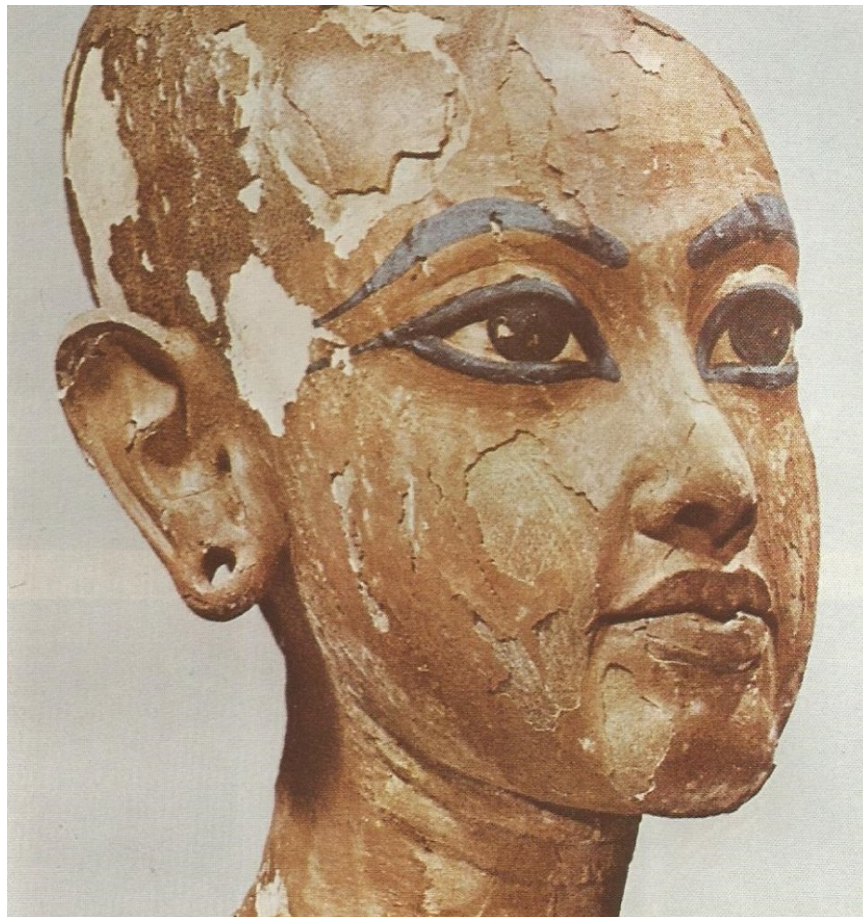
It has been reported that the position this patient had when the symptoms appeared (sitting and bending forward) was the worst of all positions that increase interdisc pressure [4].

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Makijaz of the eyes of an Egyptian woman. Notice the hole in her ear, 1350 B.C.