ISSN: 2690-9189

Case Report

International Journal of Orthopaedics Research

Cauda Equina Syndrome as A Clinical Presentation of Extradural Diffuse B-Cell Non-Hodgkin's Lymphoma: Case Report and Literature Review

Aldo Josue Agreda Santana[1]*, David Benavides Rodriguez[2] and Noé Dimas Uribe[3]

[1]Orthopedic Surgeon and 5th year resident high specialty in spine surgery. Hospital de Ortopedia para Niños "Dr. German Diaz Lombardo". Ciudad de México, México. Facultad Mexicana de Medicina. Universidad La Salle

[2]Head of the high specialty course in Spine Surgery. Vice Principal of the Hospital de Ortopedia para Niños "Dr. German Diaz Lombardo".Ciudad de México, Mexico. Facultad Méxicana de Medicina. Universidad La Salle

[3]Assistant Professor of the course of High Specialty in Spine Surgery. Hospital de Ortopedia para Niños "Dr. German Diaz Lombardo". Ciudad de México. Mexico. Facultad Mexicana de Medicina. Universidad La Salle

***Corresponding author**

Aldo Josue Agreda Santana, Orthopedic Surgeon and 5th year residente high specialty in spine surgery. Hospital de Ortopedia para Niños "Dr. German Diaz Lombardo". Ciudad de México, Mexico. Facultad Méxicana de Medicina. Universidad La Salle

Submitted: 19 Oct 2020; **Accepted:** 26 Oct 2020; **Published:** 05 Nov 2020

Introduction

Diffuse B-Cell Lymphoma corresponds to the most frequent pathological entity within the spectrum of Non-Hodgkin's Lymphoma, with reported annual incidence of 24% in the U.S. literature.

Pathological entity of aggressive and progressive course, typically presents lymphatic adenopathy's and constitutional symptoms.

In the central nervous system, 0.5% corresponds to primary CNS tumors, and it occurs in approximately 2 cases per 10 million people.

Primary spinal lymphomas located in the spinal epidural space are very rare (0.3% - 3.3%). This low incidence does not provide enough evidence to suggest what the best diagnostic tools and appropriate initial treatment should be. Compression of the spine occurs in less than 5% of cases.

The present work shows a patient of economically active age, with low back pain accompanied by constitutional symptoms, as well as progressive neurological deterioration by spinal compression, which resulted in the presentation of cauda equina syndrome (Figure 1).

Figure 1: Clinical image. Patient on admission. Note the impossibility to maintain bipedestation.

Presentation of The Case

Male patient of 52 years of age with no significant pathological history refers to the onset of the disease in September 2019, presenting decreased muscle strength and sensitivity in both legs, predominantly left, significant pain 10/10, causing frequent falls, with gradual decrease in walking as well as perineal anesthesia, constipation, urinary incontinence, sexual dysfunction, progressing to functional disability and wheelchair travel.

Upon physical examination, wheelchair patient does not achieve independent standing, lumbar spine: in flexion as anti-algic posture, neurological examination Sensitive level L3 L4 hypoesthesia, characterized by anesthesia in the saddle area, decreased anal sphincter tone, urinary incontinence, muscular strength 3/5 according to Daniels scale in both extremities.

Simple magnetic resonance: It has simple magnetic resonance: T1, T2 sequence. The image observed correspond to central and left foraminal compressive tumor T3 T4 levels.

It integrates diagnosis of equine cauda syndrome secondary to compressive tumor L3 L4 levels, is decided to treat it urgently, it evolves favorably achieving independent standing, it is sent pathology sample obtaining as diagnosis: Diffuse lymphoma of large cells. We considered send to the hematology and oncology service where specific chemotherapy with a favorable response. In this moment, the patient receives physical therapy to continue with retraining of the walk (Figure 2).

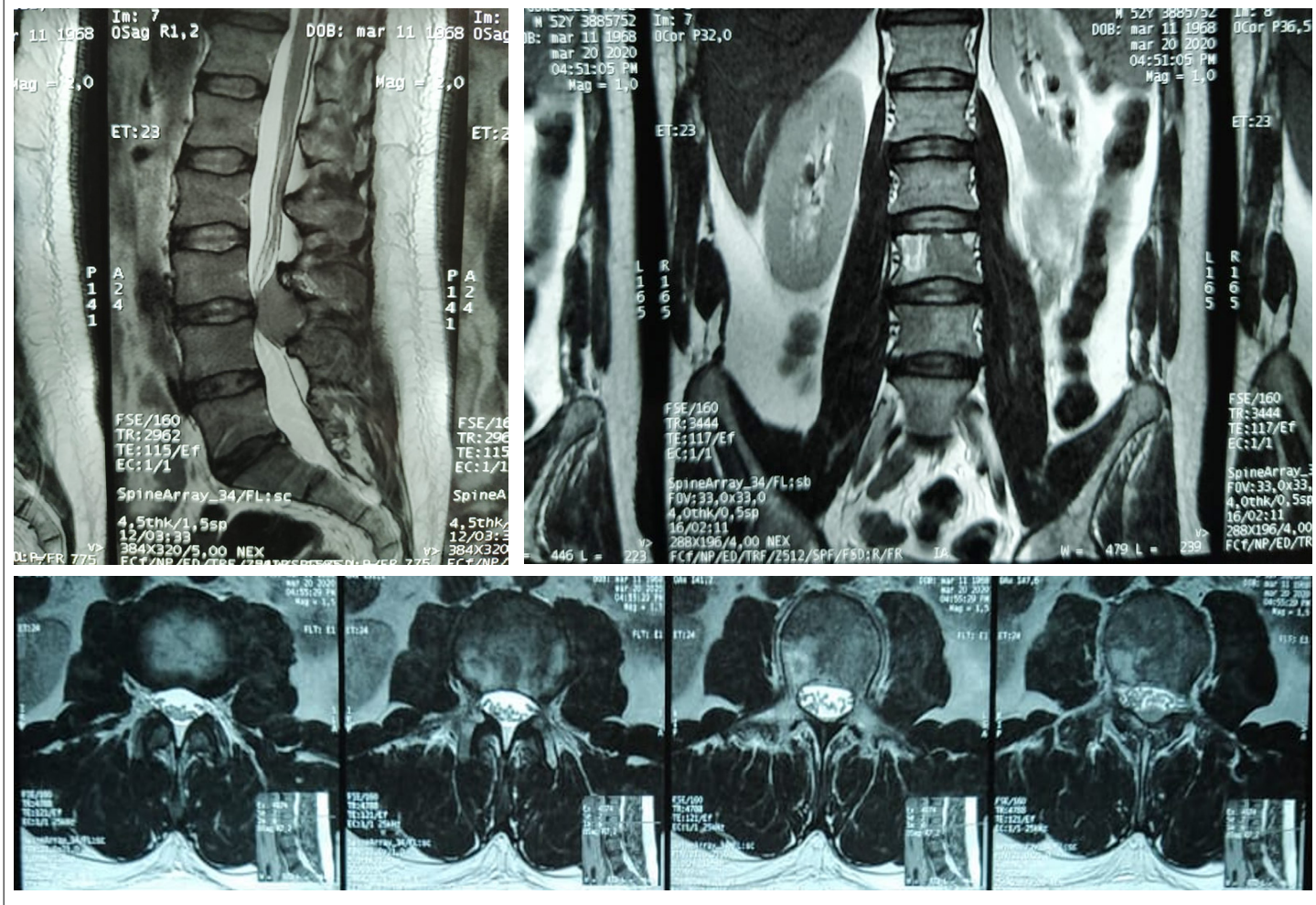

Figure 2: MRI of the lumbar spine. The image observed correspond to central and left foraminal compressive tumor T3 T4 levels.

Surgical Treatment: Laminectomy, excisional biopsy of tumor L3 L4 / lumbar instrumentation l3 l4 l5/ posterolateral arthrodesis (Figure 3-5).

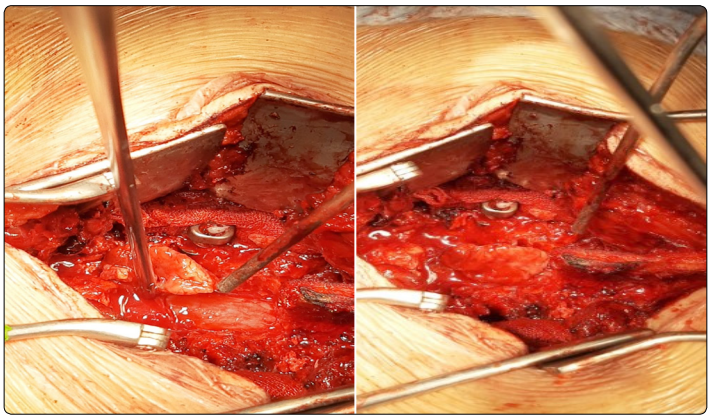

Figure 3: Laminectomy, excisional biopsy of tumor L3 L4.

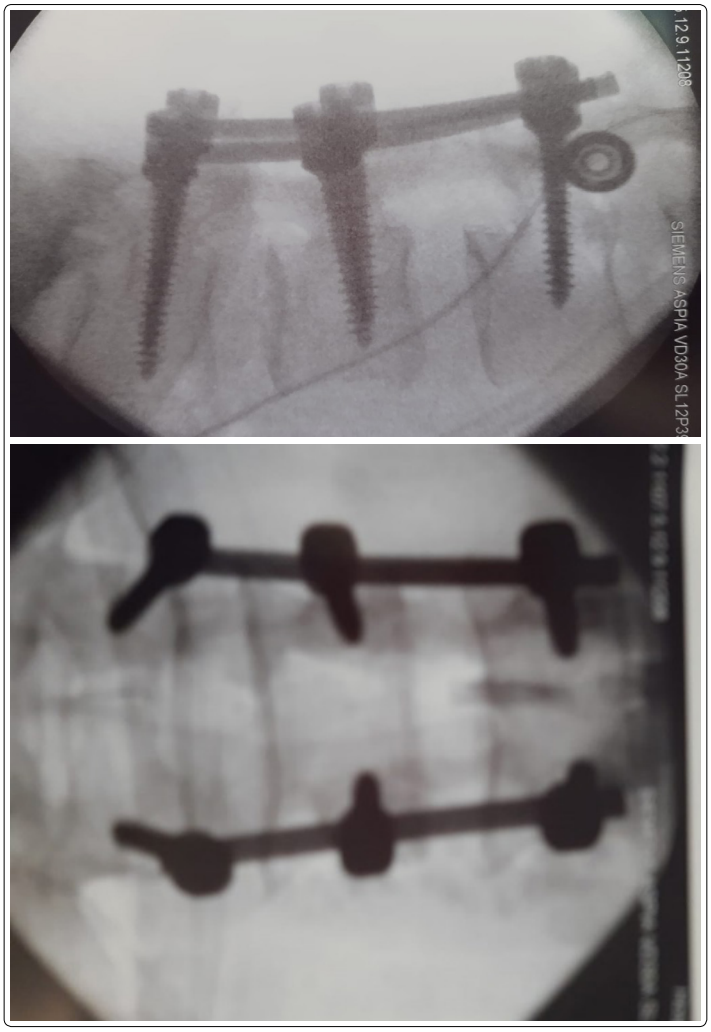

Figure 5: lumbar instrumentation L3 L4 L5 and posterolateral arthrodesis

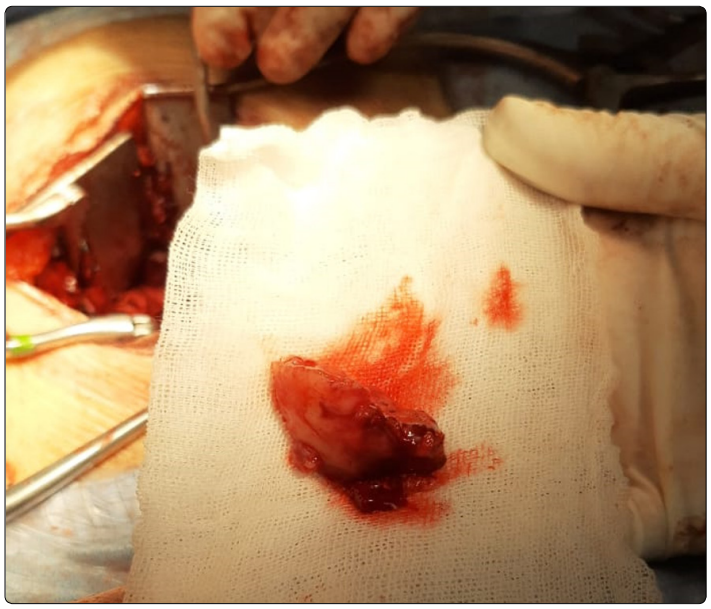

Figure 4: Obtaining a surgical piece. Macroscopically of 5.2x3.5cm in crest form, stony consistency, yellowish, multilobed.

Conclusions: The work presented here shows the importance of timely detection, urgent surgical treatment and the multidisciplinary clinical approach that allows improving, although with a reserved prognosis, the quality of life of an economically active patient [1-5].

References

1. João Páscoa Pinheiro, Joana Rato, Olinda Rebelo, Gonçalo Costa (2020) Primary spinal epidural lymphoma: a rare entity with an ambiguous management. BMJ Case Rep 13: 233442.
2. Seung Kook Kim, Sun Ho Lee, Eun Sang Kim, Whan Eoh (2016) Diffuse Large B-Cell Lymphoma Mimicking Schwannoma of Lumbar Spine. Korean J Spine 13: 71-73.
3. Vicki A Morrison, Yaping Shou, Jill A Bell, Laurie Hamilton, Augustina Ogbonnaya, et al. (2019) Evaluation of treatment patterns and survival among patients with diffuse large B-cell lymphoma in the USA. Research Article FutureOncol 15: 1021-1034.
4. National Comprehensive Cancer Network (2019) NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines): B-Cell Lymphomas. Version 2.2019. NCCN website. https://www.nccn.org/professionals/physician_gls/default.aspx
5. Shan Jin Wang, Dong Liang Cao, Hao Wei Xu, Wei Dong Zhao, Tao Hu, et al. (2020) Development of Primary Diffuse Large B-Cell Lymphoma Around an Internal Fixation Implant After Lumbar Fusion Surgery: A Case Report and Review of the Literature. World Neurosurg 137: 140-145.