Masculino, 72

MC:
Lumbalgia

AEA:
Lumbalgia de un año de evolución, constante, no mecánica, con mala respuesta al tratamiento médico.
Antecedente de cirugía de artrodesis lumbar y bloqueos lumbares sin respuesta realizados 3 meses antes de la consulta.

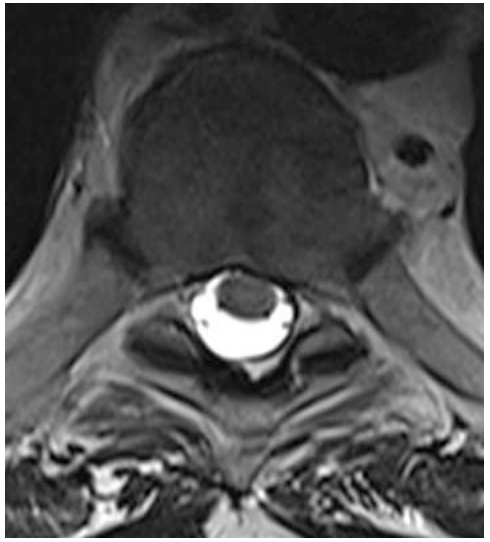
Examen Fisico:
El paciente llega a la consulta en silla de ruedas, refiere a causa del dolor.
Se observa incoordinación en la marcha (el paciente no se había percatado).
Babinsky bilateral, clonus, hiperreflexia patelar y aquileana bilateral.
Paraparesia D9 3/5.
Nivel Sensitivo D9, disociación termoalgésica.
Mc Cormick IV.

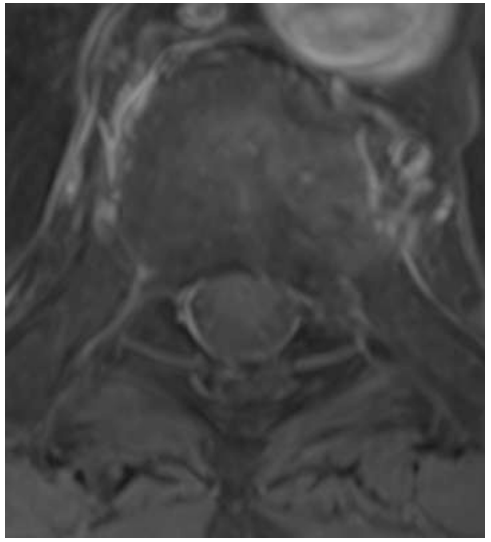
Escala de Mc Cormick

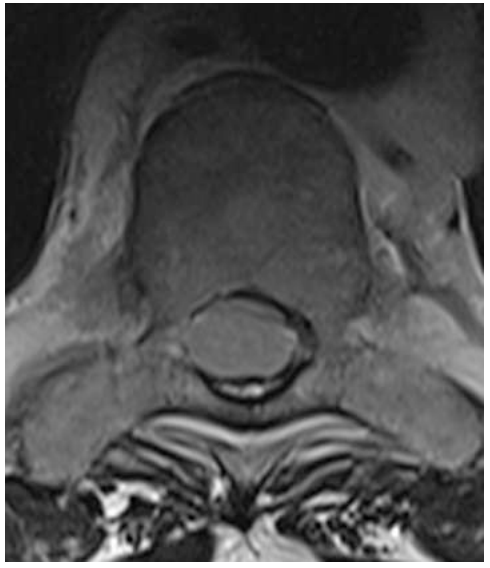
I	Neurologicamente intacto, deambula normal, puede tener disestesia mínima
II	Déficit motor o sensorial leve, el paciente mantiene independencia funcional
III	Déficit moderado, limitación de la función, independencia con ayuda externa
IV	Déficit severo motor o sensitivo, limitación de la función con paciente independiente
V	Paraplejía o cuadriplejía, movimientos espontaneos fluctuantes

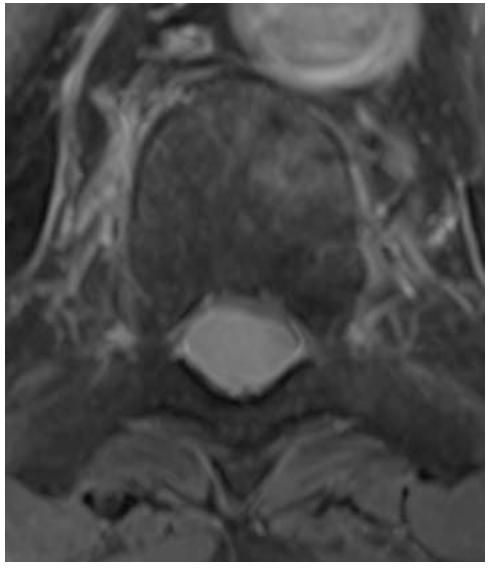
Antecedentes...

Nuevos estudios RM









Masculino, 72

MC:
Lumbalgia

AEA:
Lumbalgia de un año de evolución, constante, no mecánica, con mala respuesta al tratamiento médico.
Antecedente de cirugía de artrodesis lumbar y bloqueos lumbares sin respuesta.

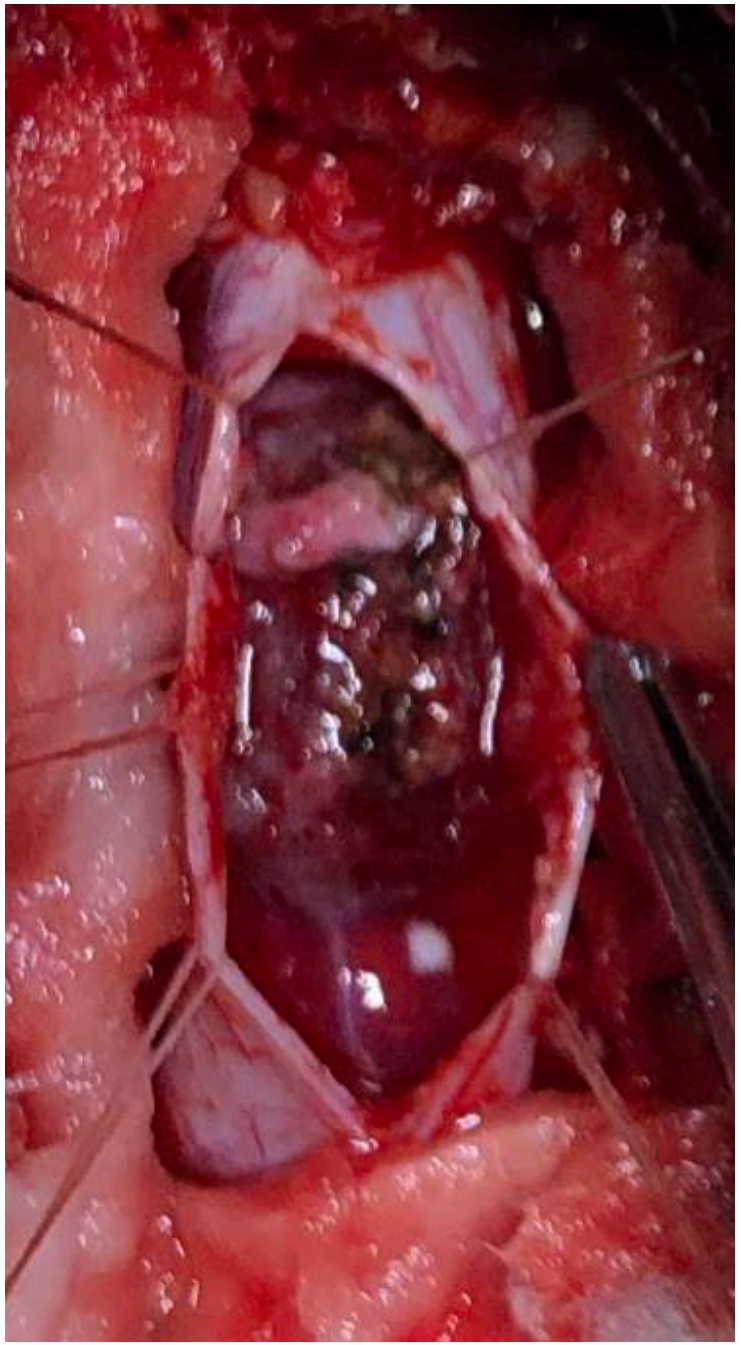
Examen Fisico:
El paciente llega a la consulta en silla de ruedas, refiere a causa del dolor.Incoordinación en la marcha (el paciente no se había percatado).
Babinsky bilateral, clonus, hiperreflexia patelar y aquileana bilateral.
Paraparesia D9 3/5.
Nivel Sensitivo D9.

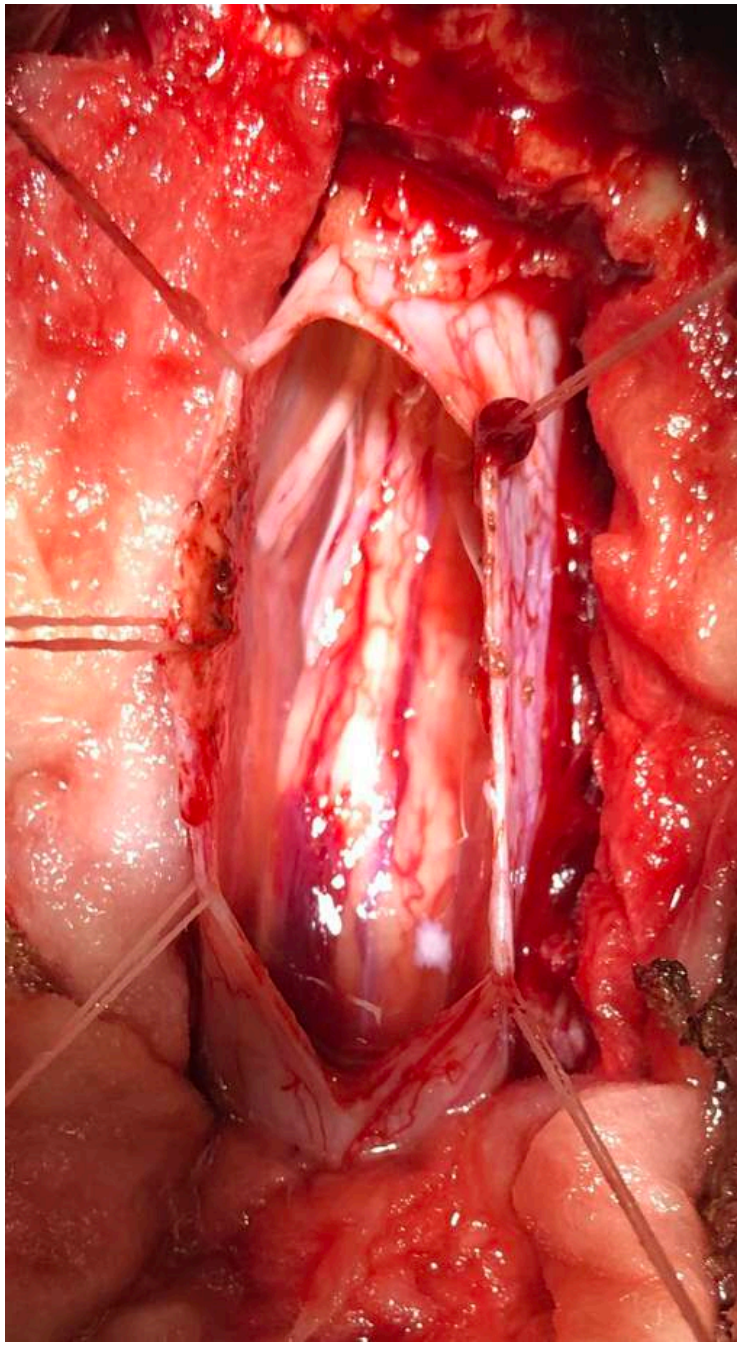
Tratamiento:

1. **Biopsia percutánea**
2. **Cirugía**
3. **Quimio / Rayos / Otros**

Diagnóstico:
Tumor intradural extramedular retro medular.
Ocupación 95 % del canal raquídeo.
Refuerza con gadolinio en todas la secuencias.
Nivel T9.

Plan de tratamiento:
Abordaje posterior con exéresis descompresiva.
Anatomía patológica.






1
2
3
4

Original article

Spinal meningiomas: Surgical outcome and literature review

Méningiomes rachidiens : résultats chirurgicaux et revue de la littérature

H. Riad[a], S. Knafo[b], F. Segnarbieux[a], N. Lonjon[a,*]

[a] *Département de neurochirurgie, hôpital Gui-de-Chauliac, 80, avenue Augustin-Fliche, 34091 Montpellier cedex 05, France*
[b] *Service de neurochirurgie, université Pierre-et-Marie-Curie, hôpital de la Pitié-Salpétrière, 75013 Paris, France*

ARTICLE INFO

Article history:
Received 15 August 2012
Accepted 9 October 2012

Keywords:
Meningioma
Spinal
Surgery
Prognosis
Long-term outcome

ABSTRACT

Background and purpose. – To evaluate the incidence, clinical presentation, operative techniques and long-term outcome of spinal meningiomas following surgery.
Methods. – Fifteen patients harboring spinal meningiomas were treated between 1998 and 2005 in our department. Diagnosis was made on magnetic resonance imaging and confirmed histologically. Microsurgical resection was carried out through a posterior approach in all cases.
Results. – Follow-up extended from 60 to 156 months (mean: 99 and median 105 months). The most common site of spinal meningiomas was the thoracic region. Tumors were strictly intradural and extramedullary in 14 patients (93%) and macroscopic resection was considered as complete in all cases. Neurological improvement was observed in 13 patients (87%). There was no operative mortality and morbidity was low (20%). No patient underwent radiotherapy and the recurrence rate is 8%.
Conclusion. – Spinal meningiomas are benign tumors for which advances in imaging tools and microsurgical techniques have yielded better results. The goal of surgery should be the total resection, which significantly reduces the risk of recurrence with an acceptable morbidity.

Mots clés :
Méningiome
Rachis
Chirurgie
Pronostic
Devenir à long terme

RÉSUMÉ

Objectifs. – Préciser les caractéristiques épidémiologiques et cliniques des méningiomes rachidiens. Rappeler les modalités techniques opératoires et évaluer le devenir à long terme des patients après un traitement chirurgical.
Patients et méthode. – Quinze patients atteints d'un méningiome rachidien sont traités chirurgicalement dans notre institution entre 1998 et 2005. Pour chaque malade, le diagnostic est confirmé par l'étude anatomopathologique de la pièce opératoire. Dans tous les cas, le traitement est effectué par une approche chirurgicale postérieure.
Résultats. – La moyenne et la médiane de suivi des patients est de 99 et 105 mois (extrêmes 60–156 mois). La topographie de prédilection est la région thoracique. La tumeur était strictement intradurale et extramédullaire chez 14 patients (93 %). Une résection jugée macroscopiquement complète était effectuée dans tous les cas. Une amélioration neurologique était observée chez 13 patients (87 %). La mortalité opératoire était nulle et la morbidité faible (20 %). Toutes les tumeurs étaient classées grade 1 de la classification de l'OMS et aucun patient n'a bénéficié d'une radiothérapie au cours de la période de suivi. Le taux de récidive était de 8 %.
Conclusion. – Les méningiomes rachidiens sont des tumeurs bénignes. L'objectif du traitement chirurgical est d'aboutir à une résection complète en réduisant au maximum la morbidité et celui d'une récidive. Les progrès technologiques tant dans le domaine diagnostique que thérapeutique permettent d'afficher de bons résultats et d'envisager une chirurgie y compris chez des patients très âgés.

1. Introduction

Spinal meningiomas account for 25 to 46% of primary spinal cord tumors (Roux et al., 1996; Gezen et al., 2000; Cohen-Gadol et al., 2003; Gottfried et al., 2003; Morandi et al., 2004; De Verdelhan

* Corresponding author.
E-mail address: n-lonjon@chu-montpellier.fr (N. Lonjon).

0028-3770/$ – see front matter © 2012 Elsevier Masson SAS. All rights reserved.
http://dx.doi.org/10.1016/j.neuchi.2012.10.137

Journal of Spine

Galgano et al., J Spine 2014, 3:1
DOI: 10.4172/2165-7939.1000157

Review Article Open Access

Spinal Meningiomas: A Review

Michael A Galgano, Timothy Beutler, Aaron Brooking and Eric M Deshaies*

Department of Neurosurgery, SUNY Upstate Medical University, Syracuse, NY, USA

Abstract

Meningiomas of the spinal axis have been identified from C1 to as distal as the sacrum. Their clinical presentation varies greatly based on their location. Meningiomas situated in the atlanto-axial region may present similarly to some meningiomas of the craniocervical junction, while some of the more distal spinal axis meningiomas are discovered as a result of chronic back pain. Surgical resection remains the mainstay of treatment, although advancements in radiosurgery have led to increased utilization as a primary or adjuvant therapy. Angiography also plays a critical role in surgical planning and may be utilized for preoperative embolization of hypervascular meningiomas.

Keywords: Meningioma; Neurosurgery; Radiosurgery; Angiography

Introduction

Spinal meningiomas are tumors originating from arachnoid cap cells most commonly situated in the intradural extramedullary region [1,2]. They represent a high proportion of all spinal cord tumors. Spinal meningiomas tend to predominate in the thoracic region, although they are described in the cervical, lumbar, and rarely the sacral area [3-5]. They pose varying surgical challenges based on their regional location, as well as their anterior/posterior orientation to the spinal cord and cauda equina. We will discuss the various locations of spinal axis meningiomas, as well as the different surgical approaches, and adjuvant therapies.

Spinal Meningiomas

Epidemiology

Intradural extramedullary spinal cord tumors account for approximately two-thirds of all spinal cord tumors in adults [6]. Meningiomas, neurofibromas, and schwannomas are the most common type of tumor in this type of location [7,8]. Meningiomas represent about 40% of these tumors [6].

The vast majority of spinal cord meningiomas are located in the thoracic region (Figure 1) [3-5,9]. This predominance of thoracic-located meningiomas is seen only in females [10]. Spinal meningiomas occur about 2.5 times more often in females than males; with approximately 75-85% arising in women. The female preponderance is thought to arise from sex hormones or other receptor types common to women [10]. Some authors believe that progesterone and estrogen receptors actually have opposing prognostic indications in regards to meningiomas. Pravdenkova et al. observed that the expression of progesterone receptors alone in meningiomas, signifies a more favorable and biological outcome [11]. They also found that either a lack of estrogen and progesterone receptors, or the presence of estrogen receptors in meningiomas, correlated with a more aggressive clinical behavior, progression, and recurrence. Hsu and Hedley Whyte also found that the presence of progesterone receptors, even in a small subgroup of tumor cells, indicated a more favorable prognostic value for meningiomas [12].

An interesting epidemiological feature of spinal meningiomas, is that not only are they more common in women, but there is a sharp rise in postmenopausal females [9]. It has been postulated that these tumors are so grossly over-represented in postmenopausal females as a result of an association with osteoporosis. Previous authors have made suppositions that meningeal stretching or spinal meningeal trauma from direct contact with bone fragments of osteoporotic fractures, may in fact lead to a meningeal reparative proliferative process leading to tumor formation [9].

Meningiomas may also be found in the region of the atlas and axis. The incidence of cervical meningiomas is about 14-27% [10]. They have a similar clinical presentation as foramen magnum meningiomas. The reason for this is that many cervicomedullary junction meningiomas expand to the high cervical region, just as many high cervical meningiomas expand rostrally through the foramen magnum [6]. Surgical treatment of meningiomas located in the high cervical region must be done with care to minimize bony removal in order to maintain mechanical stability [6]. The majority of spinal meningiomas are intradural, however a small percentage can be extradural, or both intradural and extradural. Although extremely rare, intradural, intramedullary spinal meningiomas have been described [13-16]. The incidence of lumbar spinal meningiomas is about 2-14% [10]. Sacral meningiomas have been described, although extremely rare [17].

Overall, spinal meningiomas account for about 7.5-12.7% of all meningiomas, occurring with less frequency than their intracranial

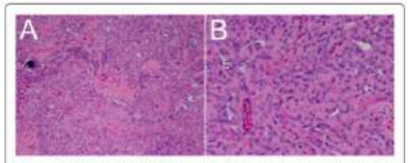


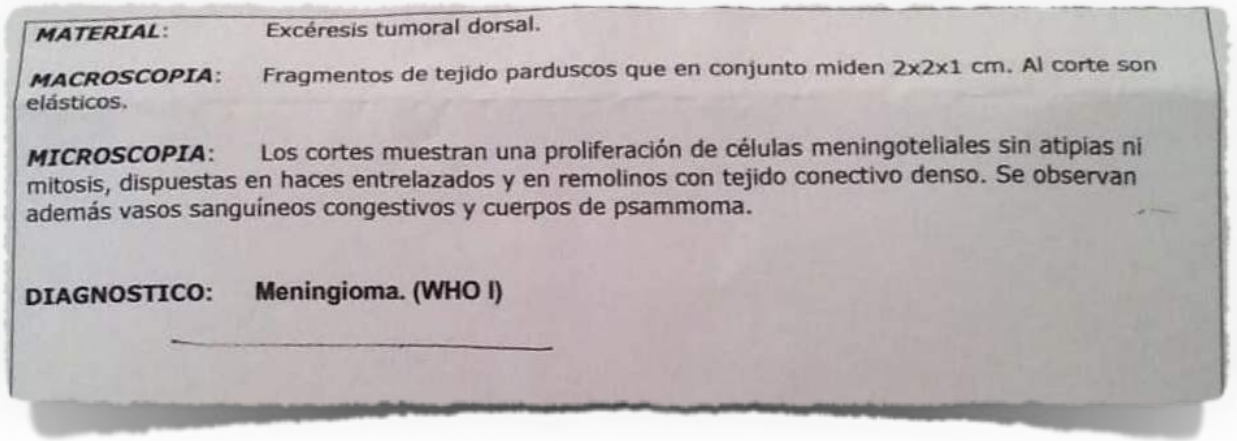
Figure 1: 10X (A) and 20X (B) magnification. Hematoxylin and eosin stain shows monotonous cells with bland histology and poorly defined cell borders. Inconspicuous nucleoli are seen. The cells have round to oval nuclei and rare nuclear pseudoinclusions. Mitotic figures are not present. Whorls and a single calcification (Psammoma body) are present.

***Corresponding author:** Eric M. Deshaies, MD, Director, SUNY Upstate Neurovascular Institute; Director, Cerebrovascular, Endovascular, and Skull Base Neurosurgery; Surgical Director, Neurocritical Care Unit, Director, Endovascular Fellowship Program; Associate Professor of Neurosurgery, Neuroscience & Physiology, SUNY Upstate Medical University, 750 East Adams Street Syracuse, NY 13210, USA, Tel: 315-464-5502; Fax: 315-464-6373; E-mail: deshaiee@upstate.edu

Received December 06, 2013; **Accepted** February 03, 2014; **Published** February 06, 2014

Citation: Galgano MA, Beutler T, Brooking A, Deshaies EM (2014) Spinal Meningiomas: A Review. J Spine 3: 157. doi:10.4172/2165-7939.1000157

Diagnóstico Anatomía Patológica:
Meningioma WHO I



MATERIAL: Excéresis tumoral dorsal.

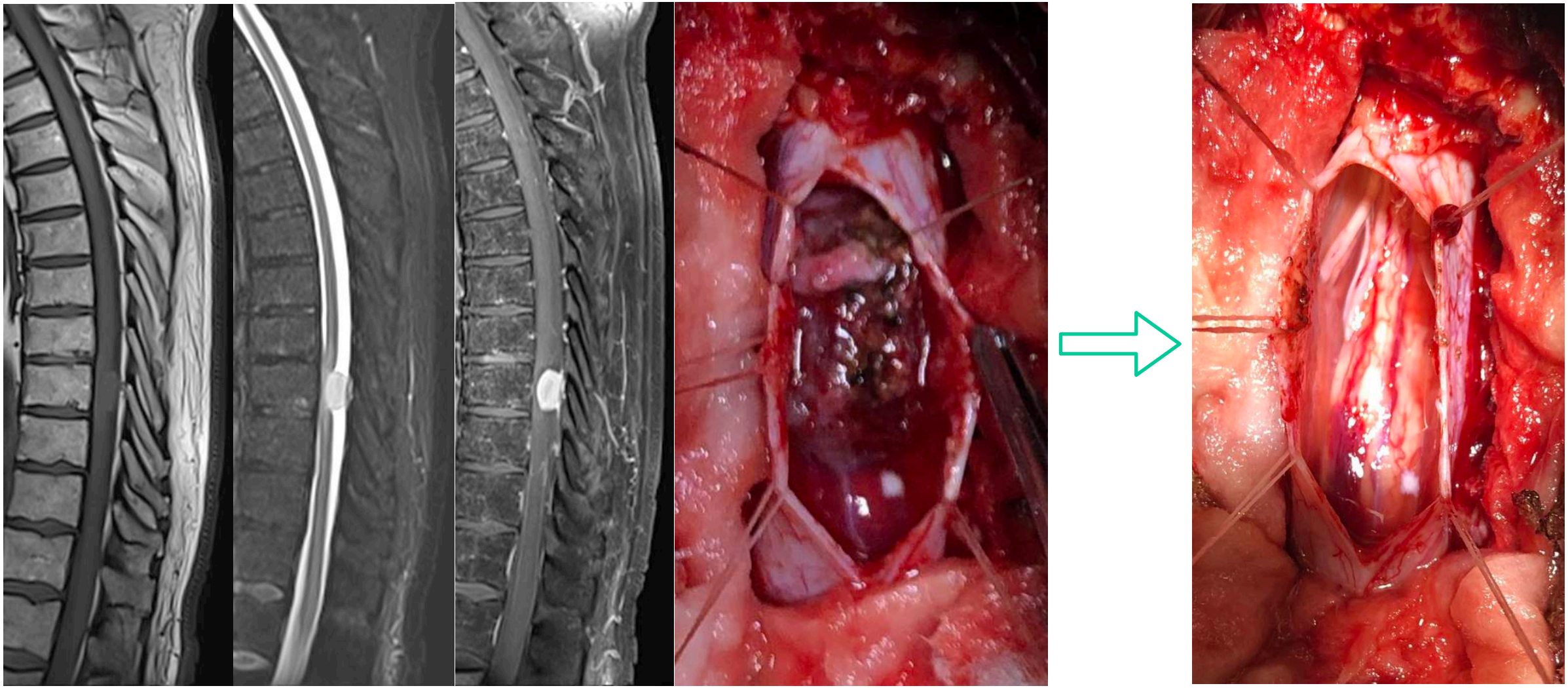
MACROSCOPIA: Fragmentos de tejido parduscos que en conjunto miden 2x2x1 cm. Al corte son elásticos.

MICROSCOPIA: Los cortes muestran una proliferación de células meningoteliales sin atipias ni mitosis, dispuestas en haces entrelazados y en remolinos con tejido conectivo denso. Se observan además vasos sanguíneos congestivos y cuerpos de psammoma.

DIAGNOSTICO: Meningioma. (WHO I)

Evolución:
Recuperó la marcha con andador, actualmente bajo neuro rehabilitación.

Resumen



- Meningioma WHO I intradural extramedular retro medular T9.
- Tratamiento de tumerectomía sin artrodesis.