

## IMAGEM EM NEUROLOGIA/IMAGE IN NEUROLOGY

## An Uncommon Cause of Back Pain in an Adolescent Patient

## Uma Causa Incomum de Lombalgia num Adolescente

Joana F Pires <sup>1,\*</sup>, Sara Galdes Paulino <sup>2</sup>, Daniela Araújo <sup>3</sup>, Juliana Maciel <sup>4</sup>

1-Serviço de Pediatria / Centro Hospitalar Vila Nova de Gaia/Espinho, Vila Nova de Gaia, Portugal

2-Serviço de Pediatria / Hospital de São João, Porto, Portugal

3-Serviço de Pediatria / Hospital de Braga, Braga, Portugal

4-Serviço de Pediatria / Unidade de Saúde Local do Alto Minho, Viana do Castelo, Portugal

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**\*Autor Correspondente / Corresponding Author:**

Joana F. Pires  
Rua Conceição Fernandes  
Vila Nova de Gaia  
4434-502 Vila Nova de Gaia  
[joanapires@gmail.com](mailto:joanapires@gmail.com)

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A 14-year-old male was admitted to the Pediatric Emergency Department with complaints of low back pain starting 6 months prior, without irradiation or notion of progressive worsening, and with good response to analgesia. He engaged in football practice 3 times a week, denying a history of previous trauma. He also denied fever, asthenia, weight loss, as well as pain in other joints. The physical examination was unremarkable, including neurological examination. A lumbosacral magnetic resonance imaging (MRI) (Figs. 1 and 2) was later performed and showed a vertebral hemangioma of the L3 body.

The adolescent was subsequently evaluated in a Neurosurgery consultation, having no surgical indication at that moment, maintaining periodic surveillance and symptomatic treatment. He is currently stable, with sporadic pain episodes and good response to analgesia.

In this case, we describe an adolescent with a radiological exam consistent with a vertebral hemangioma of the L3 body.

Bone hemangioma is an uncommon condition in the pediatric population.<sup>1-3</sup> The spine is the most common location, with the thoracic and lumbar vertebrae being the most commonly affected sites.<sup>2</sup> Reported prevalence of vertebral hemangiomas (VH), in the general population, is 10%-12% according to literature.<sup>2,3</sup>

VH are usually asymptomatic, diagnosed incidentally on imagiological exams and typically have an indolent course. However, in some cases, they can lead to back pain and, more rarely,



Figure 1. Axial plane of lumbosacral MRI



Figure 2. Sagittal plane of lumbosacral MRI

compression of the spinal cord or nerve roots, resulting in sensory and motor deficits.<sup>1-4</sup>

In cases associated with pain, the latter is often localized, worse at night and can be exacerbated by physical activity.<sup>1,3</sup> In symptomatic VH without neurologic involvement, the literature recommends annual neurological and imaging examinations upon surveillance and medical

treatment.<sup>3</sup> Anti-inflammatory and analgesic medication may be considered for controlling pain. The use of propranolol can be effective in reducing pain while also slowing tumor growth.<sup>2,3</sup> In cases where propranolol is not effective or in case of recurrence, sirolimus may be an alternative.<sup>3</sup>

In cases involving signs of spinal cord or nerve root compression or in the event of refractory pain, invasive treatment may be necessary. This may include endovascular embolization, vertebroplasty, alcohol injection, radiotherapy or surgical decompression.<sup>1-4</sup> ■

#### Contributorship Statement / Declaração de Contribuição

JFP: Conception, writing of the manuscript, and preparation of the images.

SGP: Conception and critical review

DA: Conception and critical review

JM: Critical review with intellectual contribution.

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