

Aggressive vertebral hemangioma

Treatment

Accurate [preoperative diagnosis](#) is essential because they are highly vascular with a high tendency for intraoperative [bleeding](#).

Management of aggressive VHs involves pre-op embolization, spinal surgery, and reconstruction. Pain management, physical rehabilitation, and close neurological follow-up are imperative to near-total recovery ¹⁾.

Surgery

[Surgery](#) is required in cases of rapid or progressive neurological symptoms like compressive [myelopathy](#) or [radiculopathy](#).

Vertebral hemangioma resection can be a real challenge for spine surgeons, given the high potential of massive intraoperative bleeding. For this reason, preoperative transarterial embolization of this tumor is supported by the available literature ²⁾.

A navigation-guided drill is highly helpful for real-time monitoring of ongoing tumor resection. It enables safely resection of the tumor, especially in the anterior cortical surface of the vertebral body, and easily resections even hard tumors. This method results in reducing residual tumors and maintaining safe resection ³⁾.

Radiotherapy

[Radiotherapy](#) can be used in patients with slowly progressive neurological deficits.

CT guided alcohol injection

While CT-guided direct alcohol injection is effective in the management of symptomatic and aggressive vertebral hemangiomas, spinal angiography and trans-arterial embolization of the blood supply to the vertebral body hemangioma, prior to the direct transpedicular alcohol embolization of the lesion, improves the safety of the procedure ⁴⁾.

Radiofrequency ablation

Other emerging options in cases of aggressive hemangiomas include [radiofrequency ablation](#) with a hemostatic agent (e.g. [FLOSEAL](#), Baxter, USA), and bone autograft placement ⁵⁾.

Minimally invasive procedures may be successful in smaller lesions ⁶⁾.

Case reports

The case of a [pregnancy](#) who was diagnosed with an aggressive [vertebral hemangioma](#) that further led to progressive [paraparesis](#). We had to take the fact that she was pregnant into account in the diagnostic [procedure](#), the choice of examination method, and also the method of [therapy](#). The goal of this [case report](#) is threefold: (1) provide an overview of the possible methods of management, specifically imaging, which will aid in diagnosis and based on that, (2) determine the appropriate therapy, and (3) [review](#) the [risks](#) and [benefits](#) of each will be presented when choosing individual [approaches](#) ⁷⁾.

¹⁾

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³⁾

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⁴⁾

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⁵⁾

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⁷⁾

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