

Peer Review File
Article Information: <https://dx.doi.org/10.21037/jss-22-21>

Reviewer A

Comment 1: I applaud the authors on their work. The manuscript is an integral publication to enhance existing literature. Excellent figures. Recommend accept.

Reply 1: Thanks for your comment. We sincerely appreciate your positive feedback.

Reviewer B

Comment 2: Consistent use of currently accepted terminology throughout the manuscript is recommended. "Cavernous hemangioma", "angioma", "cavernoma" etc are used interchangeably throughout the current version. I suggest using "cavernous malformation", which is the current most widely adopted terminology. It would however be appropriate to list the alternative terms to provide historical context.

Lines 117-118 use "Cowden disease" followed by "Cowden syndrome". Consider using only one of these throughout. The alternative "multiple hamartoma syndrome" has been used previously, and may warrant mention only for historical context.

Besides Cowden syndrome, what other clinical contextual factors might be associated with a cavernous malformation? De novo formation following radiation therapy?

Lines 73-75 read: "Establishing a correct diagnosis is essential to define correct surgical planning and provide proper treatment avoiding maneuvers that favor bleeding." However, lines 102-103 describe an intraoperative approach assuming the lesion was a nerve sheath tumor, and lines 108-110 report the patient's excellent outcome. Therefore, why is a correct preoperative diagnosis of cavernous malformation (CM) "essential"? Apart from MRI, would alternative modalities (such as catheter-directed angiography) might permit such a specific, rare diagnosis? With regard to operative technique, what specifically would you have done differently had you known it was a CM in this case? Is there evidence in the literature (such as previous case reports) to suggest these hemodynamically slow flow lesions pose a risk of significant hemorrhage? Might there be a role for preoperative embolization to minimize the risk of bleeding? (probably not, as these are typically angiographically occult, but this should be addressed as a potential diagnostic consideration).

Reply 2: We thank Reviewer B for the constructive comments on our manuscript.

Changes in the text:

As suggested:

-We changed the manuscript, using only the term cavernous malformation and only the term Cowden syndrome.

-We modified the manuscript about the operative technique. We agree that the adjective “essential” is not well indicated. We prefer to say “helpful”. Angiography seems not to be necessary with slow flow lesion. No significant hemorrhage seems possible with spinal CM. Anyway, intraoperative bleeding with piecemeal resection could make the procedure more difficult increasing the risk of damage to nearby structures.

Lines 158-160 describe different enhancement patterns which can serve to distinguish a CM from a schwannoma, however, this distinction can't be made in your provided MRI images. Consider providing an image from a comparison case of a confirmed schwannoma which demonstrates the more specific features you described.

Changes in the text

We changed the manuscript:

Variability in contrast enhancement is observed in previous reports of foraminal SCMs. Schwannomas usually presented massive and homogenous enhancement.

Consider adding annotations to figures 2, 3, and 4 to identify the findings described.

As suggested other annotation has been added

Reviewer C

Comment 3: The authors reported a case of foraminal cavernoma in the context of Cowden's syndrome.

They theoretically described the differential diagnoses (eg; schwannoma) and their differential points, which will give us useful information in treating these lesions.

I think they should use one term to describe cavernoma. Multiple terms were seen in the text (cavernoma, cavernous haemangioma, cavernous angioma, etc).

Overall, the manuscript is well-written and worth to be published.

Reply 3: Thanks for your appreciation.

Changes in the text

As suggested, we changed the manuscript, using only the term cavernous malformation

Reviewer D

Comment 4: The emphasis should be on the known association with Cowden syndrome and vascular malformations. This is better established intra-cranially than extra-cranially.

Suggest major revision. Many of the sections need to be better structured and more concise.

See the attached word document for more details.

Reply 4 We really appreciate your detailed review. We believe these corrections have resulted in a significantly improved manuscript.

Changes in the text

As suggested, we changed the manuscript following the reviews made and replying to comments as requested