Author’s response to reviews

Title: Hibernoma: a rare case of adipocytic tumor in head and neck.

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Author’s response to reviews:

Dear Professor,

I’m sending the revised manuscript entitled: “Hibernoma: a rare case of adipocytic tumor in head and neck.” (by Lechien JR et al.) which is submitted for publication in BMC Ear Nose and Throat. You will find all recommended changes below in red bold.

We first want to thank the reviewer for their relevant and interesting comments. We considered all of them to improve the manuscript.

Editor Comments:

1. In the main manuscript, please replace the heading "Case Report", with "Case presentation".
Done: p3, paragraph 2: case presentation (title).

2. Please move the list of abbreviations to after the Conclusions.
Done: p.6 of the manuscript.

3. After the List of abbreviations, please include the heading "Declarations" followed by the following sub-headings:

Declarations

- Ethics approval and consent to participate
- Consent to publish
Done. p.6 of the manuscript.

4. In the section "Authors' contributions" please use the authors' initials.

Done.

5. Generally, and according to most countries' national regulations, case reports do not require formal ethics approval unless they are reporting the experimental use of a novel procedure or tool. If you did use a new procedure or tool on the patient, please make this clear in the manuscript and provide a clear justification for why the new procedure or tool was deemed more appropriate than usual clinical practice to meet the patient’s clinical needs. If this was not the case, simply state "Not applicable" in the Ethics section. For more information on our editorial policies concerning Ethics approval and consent to participate, please go to: http://www.biomedcentral.com/getpublished/editorial-policies#ethics+and+consent.

Done. p.6 of the manuscript.

6. Figure 1 and 2 are present twice in the manuscript. Please remove the duplicates. Table 1 should be on one page only.

Done. p.9 of the manuscript.

Reviewer reports:

Mainak Dutta (Reviewer 1): This article is a single case report that describes the clinical, imaging and histologic details of hibernoma, the seldom-encountered benign neoplasm in the head-neck region. The manuscript emphasizes on the rarity of the neoplasm and discusses some points of concerns associated with it. However, there are multiple areas where the authors need to re-assess the context and clarify accordingly.

1. The description of the patient (the Case Report section) promises nothing new, and adds no important clinical aspect to the existing body of literature. The concern for probable malignancy that was actually the "unusual" part of the clinical presentation (as mentioned
in the Discussion later; second paragraph) is completely missing. In fact, there is no sense of urgency in the case description that would indicate that the authors at any point of time actually suffered from any diagnostic dilemma, due to the possibility of some sinister differential diagnosis. Thus, the clinical description needs to be re-written.

We re-write the clinical description: p.3, Case presentation:

“A 30-year-old man was referred to the Department of Otolaryngology and Head and Neck Surgery for mass located in the right posterior cervical triangle of the neck. The patient had this mass since several months but it recently started to grow in a context of substantial neck pain. The patient had no difficulty to breathe and swallow. Clinical examination exhibited a relatively mobile, soft mass located in the supraclavicular area. No cervical node was found. Both clinical and ultrasound examinations led to suspect a soft tissue mass, and the magnetic resonance imaging (MRI) revealed a 38mm along the axis tumor (Figure 1) between the elevator scapulae and the right scalene muscles. The tumor infiltrated the scalene muscles and the injection of intravenous contrast (gadolinium) reported a homogenous enhancement of an important underlying vascularization, a nodular structure of the tissue, and the presence of septa>2mm. According to the clinical features and the MRI characteristics, we highly suspected liposarcoma of the neck. Thus, a surgical procedure was made to completely excise the mass and the macroscopic examination revealed an encapsulated taned-brown polylobulated tumor. The immediate post-operative follow-up was unremarkable. The definitive histopathological examination retained the diagnosis of a hibernoma, which was characterized by mature fat cells, abundant eosinophilic cells with small cytoplasmic vacuoles and regular, small, round cell nuclei (Figure 2). The 4-years follow-up was unremarkable and the patient had no recurrence.”

2. The MR imaging needs to be more vivid and suggestive. One of the key features of the Discussion section is to highlight how a hibernoma would differ from lipoma in imaging. Considering the malignant potential of lipoma, and that the clinical presentation of this patient raised the concern for a malignant tumor, the MRI of the lesion should have been provided in more details. I would urge the authors to provide images that have tell-tale signs of hibernoma, which would differentiate it from a lipoma.

We provide new image and new description.

p.3 case presentation:

“Both clinical and ultrasound examinations led to suspect a soft tissue mass, and the magnetic resonance imaging (MRI) revealed a 38mm along the axis tumor (Figure 1) between the elevator scapulae and the right scalene muscles. The tumor infiltrated the scalene muscles and the injection of intravenous contrast (gadolinium) reported a homogenous enhancement of an important underlying vascularization, a nodular structure of the tissue, and the presence of septa>2mm. According to the clinical features and the MRI characteristics, we highly suspected liposarcoma of the neck. Thus, a surgical procedure was made to completely excise the mass and the macroscopic examination revealed an encapsulated taned-brown polylobulated tumor.”

p.9: new figure with several MRI plans.
Figure 1: MRI of the hibernoma.

Figure 1 legend: The MRI revealed a 38mm along the axis mass of the posterior cervical triangle with septa>2mm (A), nodular structures (B), muscular invasion (C), and a high vascularization (D).

Further, in the MR image provided, "septa > 2 mm" has not been clearly delineated.

We delineated the septa’s in the new figure 1, p.9.

3. The literature review in the Discussion section should have been more elaborate and descriptive, especially in the context of Table 1. What are the source materials for the data incorporated in this Table?

Effectively. We realized the Table 1 according to the imaging’s features described in 5 papers. Thus, we added this point in the Table 1 legend: p.11 : « Table 1 legend: C+= contrast +; F= female; M= male; y= year. Many case presentations allowed the realization of this table [2,3,6,12,13]. »

4. The Abstract is too brief, and therefore incomplete, and misses points important for the present clinical presentation. It must be re-written.

We re-written the abstract including previous advices of the reviewer (better development of clinical findings): p.2:

“Abstract:

Background: Hibernoma is a rare soft tissue tumor stem from persistent fetal brown fat tissue. This benign tumor may occasionally occur in head and neck area and, in most cases, is characterized by an asymptomatic slow growth.

Case presentation: We presented an uncommon case of hibernoma of the posterior cervical triangle occurring in a 30-year-old man referred to the department of otolaryngology. The patient suffered from a right, very painful, and rapidly growing mass since 3 months. MRI examination reported both an infiltrating mass and a homogenous enhancement of an underlying vascularization after the injection of intravenous contrast. According to the risk of sarcoma, a surgical procedure was made to completely excise the mass that was a hibernoma.

Conclusions: Hibernoma may occur with an uncommon clinical presentation imitating malignancy. MRI plays a key role in the differential diagnosis and surgery remains the better therapeutic approach.”

5. The references should follow the journal house/Vancouver style. Special emphasis should be given on punctuation and uniformity in style. The original language of publication should be mentioned in second brackets for ref. 5.
Done.

6. It should be a conscious effort to avoid mentioning the patient as "case".

Done. We changed case by patient in the following paragraphs:

1. Background: line 9: “In this paper, we reported an unusual case of hibernoma in a patient with a painless mass at the base of the neck. »

2. Discussion: paragraph 1, line 2: “Among these, only three patients had hibernoma in the posterior cervical triangle but it seems highly probable that the diagnosis is widely underestimated [7,8]. »

3. Discussion: paragraph 2, line 3: “In our patient, the rapid growth and the related pain are uncommon manifestations and prompted us to quickly carry out additional examinations to exclude malignancy.”

4. Discussion: paragraph 3: line 1: “In our patient, the MRI examination showed a 38mm along the axis, relatively well circumscribed tumor with intermediate signal intensity between subcutaneous fat and muscle.”

5. Discussion: paragraph 4, line 1: “The final diagnosis is made after a fine needle aspiration procedure or after the surgical excision [6]. As showed in our patient, the histopathological findings include”

7. State the full form first, before stating its abbreviation. The Abstract section should be noted for an example.

Done. Abbreviations: p. 6:

“Abbreviations:

Computed tomography: CT

Magnetic resonance imaging: MRI.”

Best regards,

Dr. Jerome R. Lechien, MD, PhD, MS.