



# Revista Española de Cirugía Ortopédica y Traumatología

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## LETTERS TO THE EDITOR

### Re: Intramuscular lipomas: Large and deep benign lumps not to be underestimated. Review of a series of 51 cases<sup>☆</sup>



### Re: Lipomas intramusculares: bultos grandes y profundos que no hay que menospreciar. Revisión de una serie de 51 casos

Dear Sir,

We have read with great interest the article by Dr. Ramos-Pascua et al. entitled "Intramuscular lipomas: Large and deep benign lumps not to be underestimated. Review of a series of 51 cases" published in *Revista Española de Cirugía Ortopédica y Traumatología*.<sup>1</sup> The article reviews a large number of intra- and intermuscular lipomas, a relatively rare pathology. In this letter we would like to highlight some points in regard to the article in particular, and to intramuscular lipomas in general.

Firstly, we believe that intra- and intermuscular lipomas should not be included within the same group. While it is true that these lipomas have similar histopathological characteristics, they also have their own clinical, histological and imaging features. Although the authors clearly distinguish between both entities in some parts of the text, they use the term "intramuscular lipoma" to refer to the entire sample, thus generating confusion for readers. Perhaps "deep-seated lipomas" would be a more suitable term to refer to the variety of different subtypes of lipomas located under the fascia. Furthermore, intramuscular lipomas can be subclassified into infiltrative types (non-capsulated), well-defined (capsulated) and mixed (with areas of infiltration and capsulation). Except for capsulated intramuscular lipomas, which are the least common,

in terms of histology, intramuscular lipomas present mature adipocytes which infiltrate surrounding muscles. This corresponds to the characteristic images showing streaks of varying width (representing muscle fibers and fibrous tissue), with occasional interruptions.<sup>2</sup> These are different from intermuscular lipomas, in which there are normally no muscular fibers within the mass and the streaks are thin and continuous, representing intermuscular fibrous tissue.

Secondly, an interesting finding of the sample is a greater prevalence of males compared to females. This is in contrast to other studies, which report intramuscular lipomas only or mostly among females.<sup>2–4</sup> Additionally, Nishida et al. reported a higher prevalence of males in a group of 27 intermuscular lipomas. One could ask if the combination of intramuscular and intermuscular lipomas in the study by Ramos-Pascua et al. may have altered the prevalence of males. It would be interesting to know the epidemiological data of gender of patients in each subtype of deep-seated lipomas.

Thirdly, the percentage of recurrence of intra- and intermuscular lipomas may depend on different factors. For example, recurring intramuscular lipomas may be due to inadequate tumor resection caused by its infiltrative nature and the common absence of a well-defined capsule. Su et al. suggested carrying out a detailed preoperative planning and frozen sections in order to ensure healthy surgical margins.<sup>3</sup> On the other hand, intermuscular lipomas are usually well-defined and without local infiltration of the surrounding tissue, from which they can be easily separated. Moreover, defining the correct percentage of recurrences requires a longer follow-up period, as some of these lesions tend to recur more than 10 years after the initial resection. We agree with Ramos-Pascua et al. in that their follow-up period was too short to extract precise conclusions about recurrence.

Fourthly, we believe that cytogenetic tests would be a common approach in the diagnosis of intramuscular lipomas.<sup>5</sup> Their usefulness has been proven and would include lipoma-like lesions which were previously considered as intramuscular lipomas. Perhaps a greater knowledge of the cytogenetics of intramuscular lipomas will allow us to better understand and distinguish this pathology.

In conclusion, we believe that intra- and intermuscular lipomas should be approached as two different subtypes within the group of deep-seated lipomas.

DOIs of original articles:

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## Level of evidence

Level of evidence V.

## References

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S. Mctighe, A. Yi, I. Chernev\*

*West Virginia School of Osteopathic Medicine, Lewisburg, West Virginia, USA*

\* Corresponding author.

*E-mail address: ivantchernev@yahoo.com (I. Chernev).*

## Answer to: “Re: Intramuscular lipomas: Large and deep benign lumps not to be underestimated. Review of a series of 51 cases”<sup>☆</sup>



## Respuesta a «Re: Lipomas intramusculares: bultos grandes y profundos que no hay que menospreciar. Revisión de una serie de 51 casos»

In relation to the points highlighted by Dr. Ivan Chernev regarding our work, firstly we would like to thank him for their relevance. As we mentioned in the beginning of the Discussion, “benign lipomatous tumors encompass a wide and complex variety of lesions”. Having said this, the term “deep-seated lipoma” is indeed more suitable and less “controversial” to refer to a pathology which is not perfectly defined and which probably includes other entities in addition to intra- and intermuscular lipomas, like hibernomas and others.

In our series, in the Results section, we describe 78% of the intramuscular lipomas and 20% of the intermuscular lipomas based on MRI findings, since in our hands they were both clinically and histopathologically undistinguishable. In any case, distinction through imaging is not simple, given that, in the same patient, a tumor may appear, or be, intramuscular in one section and intermuscular in another. Since the approach was fundamentally clinical and general, in the second paragraph of the Discussion we pointed out that we

would be using the term “intramuscular lipoma” to refer to entities including tumors in deep locations with respect to the fascia, established within a muscle or between muscle groups. The precision of distinguishing and analyzing them separately, as done by Fletcher and Martin Bates in 1988<sup>1</sup> and previously by Kindblom et al.,<sup>2</sup> is very accurate, although this was not the objective of our study. In fact, in the section on the limitations of the study, we insist on the decision to group them all under the term “intramuscular lipoma”. The proportion between males and females in our series was indeed close to 3/1. Although we did not specify it, after reviewing this information based on the comments received, the proportion was even greater in favor of males in the group of intramuscular lipomas. Additionally, and supporting the epidemiological data, since the publication of the article we have intervened 4 new patients with deep-seated lipomas: 1 female (an intermuscular lipoma) and 3 males (3 intramuscular lipomas).

We completely agree with the third and fourth observations. Regarding the reference to recurrences, the low incidence in our series should be interpreted with natural caution due to the limitation of a mean follow-up of 33 months.

Lastly, we agree on the importance of adding to the conclusion of our work the convenience of distinguishing the different types of deep-seated lipomas, as well as the need to continue extending the knowledge about this pathology.

## Level of evidence

Level of evidence V.

## References

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