

Unreported bilateral thoracic muscle — is it a new variant or a well-known subcostal muscle?

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We read with interest the article by Lee et al. [2] on a supposedly previously unreported variation — “A rare unreported bilateral thoracic muscle on the inferior and posteromedial aspect of the rib cage: case report and literature review.” The muscle was presented by additional muscle strips that were found in the inner and inferior aspect of the rib cage closer to the posteromedial body wall. The “unreported” muscle consisted of two strips of narrow muscle fibres that originated from the inferior borders of ribs 11 and 12 that radiated to be inserted on the transverse processes of the T11 and T12 vertebrae. According to Lee et al. [2], only a few anatomical variations in thoracic wall muscles have been reported.

However, we do not agree with the author’s claims that this is a novel, previously unreported muscle. This is a classic case of subcostal muscle and is well described elsewhere [5]. This muscle is widely known to anatomists and surgeons, e.g., Bergman et al. [1] — “Illustrated encyclopedia of human anatomic variations”. They also point out that the subcostales are usually better developed on the inner surface of the thorax and are variable in number. During our dissection courses, we frequently observed the presented “unreported” subcostal muscle. We also cannot accept the statement that only a few variations of thoracic wall muscles have been reported in the literature. Numerous variant muscles of the thoracic region have been described in different articles and presented in human atlases and surgical books [1, 3–5]. The reference section of the so-called review is also poorly presented. If the authors pretend that this article present something new and made literature review,

they need to make extensive research in the literature, not only 3 references. Another question exists: how do they accept this muscle as unreported without using the classical old anatomical books? Moreover, why we do not see the other side of the thorax to observe the contralateral “unreported” muscle, and why is there no photograph that clearly presents the attachment of the transverse processes of the T11 and T12 vertebrae to which the novel muscle attached?

In conclusion, we recommend that when the authors accept a novel unreported variation first to check carefully the classical anatomical books, not only quick search in PubMed. This will prevent future miscommunications.

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REFERENCES

1. Bergman RA, Afifi AK, Miyauchi R (2022) Subcostalis. In: Illustrated encyclopedia of human anatomic variations. Available via DIALOG. <https://www.anatomyatlases.org/AnatomicVariants/MuscularSystem/Text/S/44Subcostalis.shtml> (Accessed 19 March 2020).
2. Lee A, Dean C, Labagnara K, et al. A rare unreported bilateral thoracic muscle on the inferior and posteromedial aspect of the rib cage: case report and literature review. *Folia Morphol.* 2023; 82(2): 422–423, doi: [10.5603/FM.a2022.0028](https://doi.org/10.5603/FM.a2022.0028), indexed in Pubmed: [35347697](https://pubmed.ncbi.nlm.nih.gov/35347697/).
3. Macalister A. Additional observations on muscular anomalies in human anatomy (third series), with a catalogue of the principal muscular variations hitherto published. *Trans Roy Irish Acad.* 1875; 25: 1–130.
4. Snosek M, Loukas M. Thoracic wall muscles. In: Tubbs RS, Shoja MM, Loukas M (Eds.). *Bergman’s comprehensive encyclopedia of human anatomic variation*. Wiley & Sons, Inc., Hoboken, New Jersey 2016: 335–368.
5. Standing S. *Gray’s Anatomy. The Anatomical Basis of Clinical Practice*. Elsevier, Edinburgh 2020.

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