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Pituitary MRI to Evaluate Extraocular Muscles: Is That Possible with a Routine Scanning Protocol?

With great interest, we read the article, “Extraocular Muscle Enlargement in Growth Hormone-Secreting Pituitary Adenomas,” recently published by Coutu et al in the *American Journal of Neuroradiology*.¹ We have 3 important concerns about the methodology that need to be clarified.

First, in a routine pituitary MR imaging protocol, it is interesting to evaluate the 4 extraocular muscles (EOMs) that were analyzed in your study, namely, the superior, lateral, medial, and inferior rectus muscles. In our experience, producing a pituitary MR imaging with optimal quality to detect tiny adenomas depends on a trade-off between the small FOV and various scanning parameters. Expanding the FOV to the orbital structures is not common in a dedicated high-quality pituitary MR imaging protocol.

Second, the methodology for EOM measurement was not systematically described. However, the authors cited a related article for measurements.² Certain details are crucial to evaluate the appropriateness of the measurements and should be given as the cited article did. For instance, the planes for superior-inferior and lateral-medial muscle groups should be described separately.

Third, despite the article being published in one of the most prestigious neuroradiology journals, no single MR imaging figure

was presented. We also wonder how the reviewers and the Editor were convinced about the EOM measurement on routine pituitary MR imaging. Our purpose is not to devalue this research article but to improve the transparency of its methodology, guiding future research. Therefore, presenting MR imaging figures showing the measurement technique in routine pituitary MR imaging seems crucial to externally validate the findings presented in the article.

We look forward to reading the authors' and editors' comments, which would clarify the methodology of the article.

Disclosure forms provided by the authors are available with the full text and PDF of this article at www.ajnr.org.

REFERENCES

1. Coutu B, Alvarez DA, Ciurej A, et al. **Extraocular muscle enlargement in growth hormone-secreting pituitary adenomas.** *AJNR Am J Neuroradiol* 2022;43:597–602 [CrossRef Medline](#)
2. Ozgen A, Aydingöz U. **Normative measurements of orbital structures using MRI.** *J Comput Assist Tomogr* 2000;24:493–96 [CrossRef Medline](#)

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