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CORRESPONDENCE

Answer to Letter to the Editor: High-resolution Black Blood Vessel Wall Imaging in COVID-19 Encephalopathy—is it Really Endotheliitis?

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Dear Madam, Dear Sir,

We thank you for giving us the opportunity to clarify this crucial point [1]. First of all, we acknowledge that vessel wall enhancement can be due to vasa vasorum involvement [2–5]; however, the enhancement seen is in older patients and is less extensive than in the cases we have seen, i.e. it usually is at the entrance of the vertebral arteries at the dura mater also in regions where arteriosclerotic inflammation may be present. In our cases the enhancement is more extensive and also goes up to the junction of both vertebral arteries and even into the basilar artery, which is in our experience not the case in vessel wall enhancement due to vasa vasorum enhancement only. We are currently re-evaluating these patients in a prospective study with the same MR protocol [6, 7] and in the cases we have examined until now, the enhancement has disappeared (Allali, Assal, Lövblad, unpublished data). We provide a figure showing this phenomenon in one of our patients (Fig. 1). Enhancement of cerebral vessels has been documented by other groups in patients with the disease but with other protocols [8]. This follow-up is in our opinion highly suggestive of a real vascular involvement.

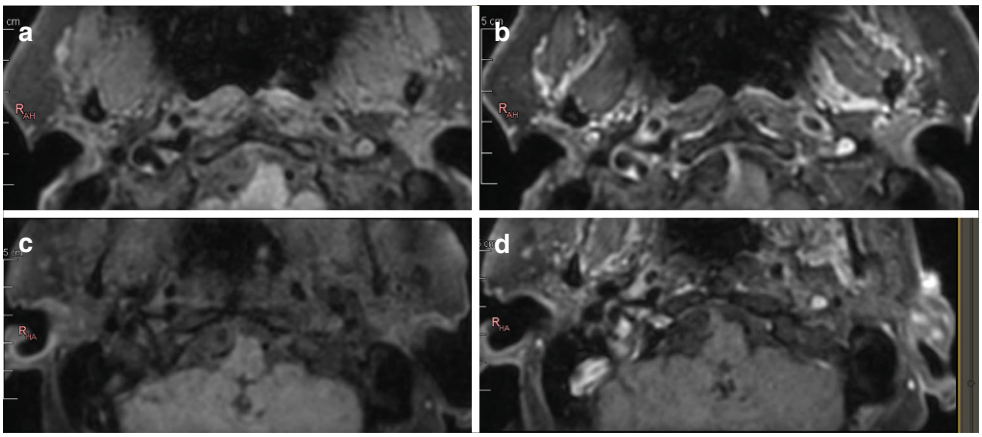

Fig. 1 Black blood images in a patient with SARS-Cov2 related encephalopathy: without (**a**) and with contrast (**b**) showing enhancement after contrast (**b**); after treatment (before contrast: **c**, after contrast: **d**), there is no enhancement on the post contrast images (**d**)

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Conflict of interest M. Uginet, G. Breville, J. Hofmeister, P. Machi, P. H. Lalive, A. Rosi, A. Fitsiori, M. I. Vargas, F. Assal, G. Allali and K. O. Lövblad declare that they have no competing interests.

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