individual SA. In addition, 3D-RA resulted in increased contrast volume per session. To what extent additional 3D-RA protocol adaptations (*e.g.* with regard to contrast volume, image acquisition and real-time image overlay) and changes in panel orientation (extending the field of view using portrait mode) can overcome some of these limitations remains unclear and is subject to ongoing investigations.

In summary 3D-RA as an additional supportive imaging modality for detection of SAs during MIS²ACE has been found feasible with regard to proximal lumbar SA depiction. Its practicability and limitations need to be further investigated.

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COVID-19 and limb ischemia: experience first

We would like to thank Dr. Cimolai[1] for commenting on our systematic review regarding the association between Coronavirus-19 (COVID-19) infection and acute limb ischemia.[2] He commented that "thrombotic events have not been highlighted in the course of complicated infections due to common endemic respiratory coronaviruses."[1] We totally agree on this statement. At the same time, we recognize that during COVID-19 outbreak period, the rate of thrombotic events — not only regarding limbs but also coronary arteries and aorta — have increased dramatically.[3-6] Further research is needed to reveal the precise mechanism underlying the thrombotic events seen in patients with COVID-19 infection. COVID-19 disease produces an uncontrolled inflammation leads to an acute respiratory distress syndrome, cytokine release syndrome, multiorgan failure, and death.[7] In this scenario, thrombotic complications derive from a hypercoagulable state.[8] Hence, COVID-19 triggers a disproportionate inflammatory response. The response was reported in SARS, although with less apparent frequency.[9, 10]

Further analysis is needed to assess pathogenetic mechanisms and risk factors for acute limb ischemia in COVID-19 patients. But our dramatic experience confirms unequivocally — more than laboratories' findings or systematic reviews — the association between COVID-19 infection and thrombosis.

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