



3 Ten consecutive coronal time-resolved inverted MIP images (2.0 s/frame) in a 25-year-old male patient presenting with a vascular malformation of right upper thigh. An early enhancement of dilated vessels in the subcutaneous layer can be seen. **(3B)** Corresponding morphological images in an axial orientation. T1-weighted pre- and post-contrast as well as T2-weighted images show multiple dilated vessels in the subcutaneous tissue. No involvement of the right gluteus maximus muscle was found.

relationship to adjacent critical structures. Moreover, TWIST allows highly sensitive and specific discrimination between high-flow and low-flow malformations. Furthermore, time-resolved MRA can also serve as an objective method to quantitatively assess therapeutic outcomes through serial MRI scans (size of treated lesion, signal characteristics).

Conclusion

Vascular malformations are complex lesions with a variety of clinical manifestations. Time-resolved MRA combined with parallel imaging and echo sharing schemes represents a reasonable alternative to more invasive DSA for the evaluation of VMs. Therefore, time-resolved MRA can play an important role in categorizing these lesions and determining their extent in order to correctly guide treatment.

References

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