

TWIST MRA enables successful identification of candidate sites for central/tunnelled line access, whilst diagnosing complications of long-term access such as venous thrombosis or congenital venous anomalies” Armstrong et al (2016).

Abstract:

AIM: To investigate whether time-resolved angiography with interleaved stochastic trajectories (TWIST) with GeneRalised Autocalibrating Partially Parallel Acquisitions (GRAPPA) parallel acquisition could be used successfully to non-invasively and efficiently image patients with more complex vascular access issues.

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MATERIALS AND METHODS: TWIST magnetic resonance angiography (MRA) in the GRAPPA algorithm was performed on 15 patients at our centre using the 1.5 T Siemens Magnetom Avanto MRI system. Images were interpreted by cardiac radiologists.

RESULTS: TWIST provided excellent dynamic imaging of the venous system, demonstrating venous occlusion, stenoses, and collaterals, as well as providing good anatomical detail.

CONCLUSION: TWIST MRA enables successful identification of candidate sites for central/tunnelled line access, whilst diagnosing complications of long-term access such as venous thrombosis or congenital venous anomalies.

Reference:

Armstrong, L., Rodrigues, J.C., Lawton, C.B., Tyrell-Price, J., Hamilton, M.C. and Manghat, N.E. (2016) Application of TWIST MR angiography to aid successful central venous access in challenging patients: initial single-centre experience. *Clinical Radiology*. July 12th. .

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