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Original Article

New hybrid reformations of peripheral CT angiography: do we still need axial images?Ruediger Egbert Scherthner^a, Florian Wolf^a, Gabriel Mistelbauer^b, Michael Weber^a, Milos Sramek^c, Eduard Groeller^b, Christian Loewe^a[Show more](#)

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Abstract

Purpose

To quantify the detectability of peripheral artery stenosis on hybrid CT angiography (CTA) reformations.

Methods

Hybrid reformations were developed by combining multipath curved planar reformations (mpCPR) and maximum intensity projections (MIP). Fifty peripheral CTAs were evaluated twice: either with MIP, mpCPR and axial images or with hybrid reformations only. Digital subtraction angiography served as gold standard.

Results

Using hybrid reformations, two independent readers detected 88.0% and 81.3% of significant stenosis, respectively. However, CTA including axial images detected statistically significant more lesions (98%).

Conclusion

Peripheral CTA reading including axial images is still recommended. Further improvement of these hybrid reformations is necessary.

Keywords

Peripheral arterial occlusive disease; CT angiography; Three-dimensional reformations; Postprocessing

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