Application of 64-slice spiral computed tomography angiography in extremity vascular injuries

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ABSTRACT. The objective of the current study was to assess the utility of 64-row helical computed tomography angiography (CTA) in the evaluation of extremity vascular traumas. The extremities from 17 clinical cases of suspected traumatic vascular damage were evaluated using 64-row helical CTA. To evaluate extremity vascular traumas using CTA, volume rendering, multiple planar reconstruction, and curved planar reconstruction technology were applied to accurately and rapidly indicate the type and extent of blood vessel damage, as well as any relationship with injuries to adjacent bones, joints, soft tissue swelling, or hematomas. The types of extremity vascular traumas evaluated included damaged arteries, artery spasms or block, blood vessels shifted because of pressure, pseudo aneurysms, arteriovenous fistula, and vein occlusion. The results of the study indicated that 64-row helical CTA could be highly efficient and accurate in the evaluation of extremity vascular traumas, and could aid in making clinical assessments.

Key words: Computed tomography angiography; Advanced judgment; Extremity vascular trauma