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# A RARE CASE OF SUBCAPSULAR HEMATOMA WITH MULTIPLE PSEUDOANEURYSMS AT NON BIOPSY RELATED SITES FOLLOWING RENAL BIOPSY

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**Introduction:** Renal biopsies are a common diagnostic tool for evaluating renal pathology. Subcapsular hematoma is a known complication. However, the occurrence of multiple cortical pseudoaneurysms at non biopsy related sites is exceptionally rare and warrants attention due to its potential for serious morbidity

**Case Report:** We reported a case of a 66-year-old female who presented with worsening renal function and was suspected to have nephrotic syndrome. An ultrasound-guided renal biopsy was performed at lower pole. The procedure was uneventful, however within hours post-biopsy, the patient developed a significant drop in hemoglobin levels with acute hemodynamic instability. A CT Angiogram of mesentry revealed the presence of a large subcapsular hematoma with foci of cortical pseudoaneurysms involving mid and lower poles and evidence of active arterial blush, indicative of ongoing hemorrhage. Immediate renal angiogram confirmed the presence of four pseudoaneurysms in the mid and lower poles of the left kidney. Superselective embolization was successfully performed and patient was subsequently discharged.

**Conclusion:** This case highlights a rare but critical complication of renal biopsy, where subcapsular hematoma can lead to multiple cortical pseudoaneurysms even at non biopsy sites. Prompt recognition and intervention are essential in preventing further complications and preserving renal function.

# IMAGING IN ACUTE STOKE CARE: EFFICACY, LIMITATIONS AND OPPORTUNITIES – A SYSTEMATIC REVIEW

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**Introduction:** The global incidence of stroke is escalating, impacting millions annually, with acute ischemic stroke (AIS) constituting a significant proportion of cases. Modern imaging techniques have revolutionized stroke care, enabling the identification of patients eligible for reperfusion therapies, including mechanical thrombectomy (MT). However, variations in imaging workflows across healthcare systems pose challenges, leading to inconsistent clinical outcomes and treatment delays. This systematic review aims to evaluate the efficacy, limitations, and opportunities associated with recent advancements in various imaging modalities for AIS management.

**Method:** A rigorous and transparent systematic review was conducted following established guidelines, employing the PICO (Population, Intervention, Comparison, Outcomes) framework. The search strategy focused on articles pertaining to acute stroke patients undergoing thrombectomy, workflow and techniques for radiographers, imaging modalities (CT and MRI), and patient selection and clinical outcomes. Scopus was utilized to identify relevant articles, and study selection and screening were managed using Rayyan, a web-based application. Inclusion and exclusion criteria were applied to screen articles, with a focus on studies published between 2021 and 2024.

**Results:** The initial search yielded 157 articles, with 10 ultimately meeting the inclusion criteria after a systematic screening process. The review highlighted several key findings. Non-contrast CT (NCCT) was found to be as effective as CT perfusion or MRI for patient selection in the late window for mechanical thrombectomy. MRI acceleration techniques were identified to make MRI feasible for acute stroke imaging while retaining quality, enabling a transition from CT to MRI-based workflows. However, MRI showed lower functional independence rates compared to CT, with similar mortality and haemorrhage outcomes. CT perfusion demonstrated moderate volumetric agreement with follow-up DWI infarct volume, with significant overestimation in certain methods. The review also emphasized the importance of workflow optimization and multidisciplinary collaboration in optimizing imaging techniques.

**Conclusion:** This systematic review underscores the crucial role of imaging in acute stroke management, highlighting both advancements and challenges. CT, CT perfusion, and MRI each offer unique benefits depending on the clinical situation, resource availability, and patient-specific factors.