



PP47

Renal pseudoaneurysm: an unusual complication of flexible ureterorenoscopy and laser lithotripsy

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Case Presentation: 56 year old male first-time stone former was found to have a 2cm mid-calyx left renal calculus. He underwent an uncomplicated flexible ureterorenoscopy, laser fragmentation and stone extraction. He was on warfarin for a mitral valve replacement. This had been stopped 3 days prior to admission and bridging heparin commenced. The procedure was uneventful and carried out under good views, following standard procedures. Post-operative macroscopic haematuria persisted for 2 weeks. This was conservatively managed with bladder irrigation and blood transfusions. He underwent an ultrasound and non-contrast CT abdomen which did not show evidence of bleeding.

Management: On renal angiography a pseudoaneurysm in the upper pole of the left kidney was seen with active extravasation of contrast. Selective catheterization and embolization achieved excellent hemostasis. Haematuria resolved and he was discharged 48 hours later.

Discussion: Renal pseudoaneurysm may occur during PCNL when the percutaneous tract disrupts a normal vessel wall, resulting in recanalization between the intravascular and extravascular space and producing a pulsating, encapsulated haematoma. The pseudoaneurysm may eventually grow and become unstable, with erosion into the pelvicaliceal system or perinephric tissue (Lee et al, Minimizing and managing bleeding after percutaneous nephrolithotomy). Therapy of choice is angiographic embolization. Previously, only two cases were reported, with the use of rigid URS and electrohydraulic lithotripsy (Aston et al, Pseudoaneurysm formation after flexible ureteroscopy and electrohydraulic lithotripsy). This is the first case reported after flexi URS and laser lithotripsy with Ho-YAG laser. Possible explanations include micro trauma from the guidewire, access sheath or laser fibre and exacerbated by increase in intrarenal pressures and further injury due to the lithotripsy.

Conclusion: Renal pseudoaneurysm should be considered with persistent, post-operative macroscopic haematuria that does not resolve and no obvious cause identified on non-invasive imaging. Renal angiography and selective embolization is the treatment of choice.