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## P429 -Burkholderia pseudomalei (melioidosis): An unusual cause of acute glomerulonephritis.

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A 67 year old gentleman presented to our centre with an acute kidney injury (creatinine 780µmmol/l) following a recent trip to Thailand. Whilst there, he was diagnosed with Burkholderia pseudomalei (melioidosis) bacteraemia secondary to a leg soft tissue infection, most likely contracted after walking barefoot in through a lake. He was treated with a 2 week course of intravenous ceftazidime, followed by high dose oral sulfamethoxazole-trimethoprim in Thailand and then repatriated to the UK. He was noted to have a creatinine of 660µmol/l whilst in Thailand.

He had active urinary sediment with 5.8g proteinuria on a 24 hour collection. Serological tests for hepatitis B and C and HIV were negative. Additionally, serological tests for autoantibodies (anti-neutrophil cytoplasmic antibodies, anti-glomerular basement membrane (GBM) antibodies and serum complements (total, C3 and C4)) were all non-contributory. He did have a 2g IgG monoclonal band on serum electrophoresis, but no evidence of Bence Jones protein in the urine.

A renal biopsy revealed an acute proliferative glomerulonephritis with a membranoproliferative pattern and crescent formation. There was IgG, C3 and C1q deposition features consistent with a post-infectious glomerulonephritis.

Despite treatment with 3 x 500mg intravenous methylprednisolone, followed a tapering regimen of high dose oral prednisolone and 5 sessions of plasma exchange, he has not recovered renal function and is now dialysis dependent. He continues on oral sulfamethoxazole-trimethoprim (3 months after diagnosis) as prophylaxis against recrudescence of melioidosis infection in the setting of recent immunosuppression. Our patient had chronic kidney disease stage 3 (creatinine 118µmol/l in May 2018) which is known to predispose to this infection.

Melioidosis is caused by the soil and fresh water Gram-negative aerobic bacillus Burkholderia pseudomalei. It classically causes pneumonia, but can also cause acute kidney injury in up to 30% of cases, usually through acute tubular necrosis, interstitial nephritis or abscess formation. There is a single case report of anti-GBM glomerulonephritis in the context of concomitant Burkholderia pseudomalei (melioidosis). To our knowledge, this is the first case of a post infectious glomerulonephritis in the context of melioidosis, which despite immunosuppression, has necessitated long term renal replacement therapy.