

Abstract Submission No.: A-1083**Warfarin-related Nephropathy in Two Patients with Mechanical Valves**

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Case Study : Warfarin-related nephropathy (WRN) is defined as acute kidney injury subsequent to excessive anticoagulation with warfarin. Patients with mechanical valves required long-term anticoagulant therapy, and warfarin remains the sole available option for anticoagulant therapy. Consequently, patients with mechanical valves constitute a special group among the entire anticoagulant population. The present study recorded two patients receiving warfarin therapy for mechanical valve presented to the hospital with gross hematuria and progressive creatinine levels. The first patient had a creatinine level of 167.8 $\mu\text{mol/L}$, and an INR value of 2.08. The urinary test results indicated the presence of urinary protein(+) and urinary occult blood(3+). The quantification of urinary protein over a 24-hour period was measured at 0.69g. The second patient had a creatinine level of 169.9 $\mu\text{mol/L}$, and an INR of 2.69. The urinary test indicated the presence of urinary protein (2+) and urinary occult blood (3+). Urinary protein quantification was 3.06g/24 hours. The complements, ANA, ANCA, anti-GBM antibody, serum protein electrophoresis, serum light chains and PLAR2 were within normal range in the both patients. Pathology of two patients all showed red blood casts and tubular injury consistent with ARN and underlying IgA nephropathy. The two patients was administered a daily dosage of 20mg of prednisolone and an oral dosage of 50mg of cyclophosphamide every other day. During a subsequent follow-up after a two-month period, the creatinine levels of both patients have decreased. Clinicians should maintain a state of increased alertness with regards to the potential occurrence of WRN who exhibit hematuria and elevated creatinine levels while on warfarin therapy, even if their INR remains within the normal range. Considering most patents of WRN have an underlying glomerular disease (mostly IgA nephropathy), the use of steroids and immunosuppressive drugs may appear to be an attractive option, particularly in patients who are unable to replace warfarin with direct oral anticoagulants (NOACs).