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## **Suledoxide use as circuit anticoagulant in Continuous Renal Replacement Therapy**

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**Case Study:** In Continuous Renal Replacement Therapy (CRRT), anticoagulation is used to prevent clotting of the extracorporeal circuit which causes loss of hemofilter and tubing. Interruptions from clotting reduces therapy time and may affect CRRT effectiveness. Suledoxide was used as circuit anticoagulant without systemic anticoagulation during CRRT in an individual who was at high risk for bleeding.

A 76 y/o man, known ESRD patient, underwent bilateral carotid endarterectomy for severe carotid artery disease. Post operatively, there was an expanding hematoma on surgical site, comatose and on inotropic support. Hemoglobin and platelet count were low.

CRRT was initiated with the following setting, CVVHD, blood flow of 80m/min, CRRT dose 30ml/kg /hr. Since patient had hematoma on surgical site with low platelets, no anticoagulation was attempted.

The 1<sup>st</sup> 2 CRRT sessions lasted for 2 and 3 hours only before clotting. On the 3<sup>rd</sup> attempt, blood tubings and hemofilter were primed with heparin. The therapy lasted for only 5 hours prior to clotting, there was no improvement in the patient's status

Sulodexide is characterized by a prolonged half-life and reduced effect on coagulation and bleeding parameters. We decided to use PNSS and Suledoxide 300 LSU for priming of bloodlines and hemofilter to extend CRRT treatment.

This time, treatment lasted for 69 hours before the hemofilter clotted. CRRT was reprimed with the same set-up. Hemofilter lasted for 72 hours before clotting. After which, patient was stable and more responsive. There were no noted bleeding episodes.

A sufficient operating time is required to ensure that an adequate CRRT dose is delivered. Suledoxide is a potential alternative to heparin for circuit anticoagulation in CRRT especially in patients at high risk for bleeding.