

## MANAGEMENT OF ANTICOAGULATION DURING EXTRACORPOREAL CIRCULATION IN A PATIENT WITH APS.

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**Background and aims:** Antiphospholipid syndrome is an autoimmune disorder characterized by thrombotic phenomena and obstetric complications, often associated with Systemic Lupus Erythematosus. It is well known that during the natural history of the disease, a thrombotic, non-bacterial form of endocarditis could affect patients (Libman-Sacks endocarditis), and surgical treatment is recommended in cases of valvular dysfunction.

During extracorporeal circulation, these patients may require higher levels of anticoagulation with unfractionated heparin to obtain and maintain an ACT level >500 sec, thus avoiding thrombotic complications.

**Methods:** A 50-year-old woman, diagnosed with SLE at the age of 27, was later diagnosed with APS due to eclampsia and deep vein thrombosis in the upper limb, in anticoagulant therapy with warfarin. She was recently diagnosed with severe mitro-aortic valve regurgitation and underwent valve replacement with two mechanical valves (Sorin Bicarbon Fit-

line 21 and 29mm). Prior to surgery, azathioprine was discontinued, and thrombocytopenia was observed (60,000/mm<sup>3</sup>), so we started 37.5 mg of prednisone equivalent for 7 days. Her baseline aPTT was 93.3 sec with a ratio of 3.11, and platelets increased to 91,000.

During extracorporeal circulation, a standard dose of unfractionated heparin (300 IU/kg) was administered, resulting in an ACT of 600.

**Results:** No additional heparin doses were needed during surgery to maintain the elevated ACT levels (ACT was tested every 15-30 minutes, with values consistently above 500). No thrombotic or hemorrhagic complications occurred.

**Conclusions:** A prolonged baseline aPTT can make anticoagulation management during extracorporeal circulation difficult and challenging. In this case, there was no need to adjust the standard dose of unfractionated heparin to achieve acceptable ACT levels. We suggest frequent ACT testing to ensure proper anticoagulation levels.

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