

# HEMODIALYSIS BEFORE URGENT SURGERY IN A PATIENT TREATED WITH DABIGATRAN - A CASE REPORT

R. Santos Pinheiro, A. Vasconcelos Pereira, B. Aguiar Tavares da Silva, L. Rego, N. Costa  
Vila Franca de Xira Hospital, Anesthesiology, Vila Franca de Xira, Portugal

## BACKGROUND

Dabigatran is a reversible direct thrombin inhibitor with 80% renal excretion. Fast reversal of anticoagulants' activity may be necessary to urgent surgical procedures and mandatory for neuroaxial anesthetic approach. Hemodialysis should be considered in Dabigatran anticoagulated patients with severe renal failure who require urgent surgery.


## CASE-REPORT



Male  
81 years old  
ASA IV  
Partially dependent on daily life activities

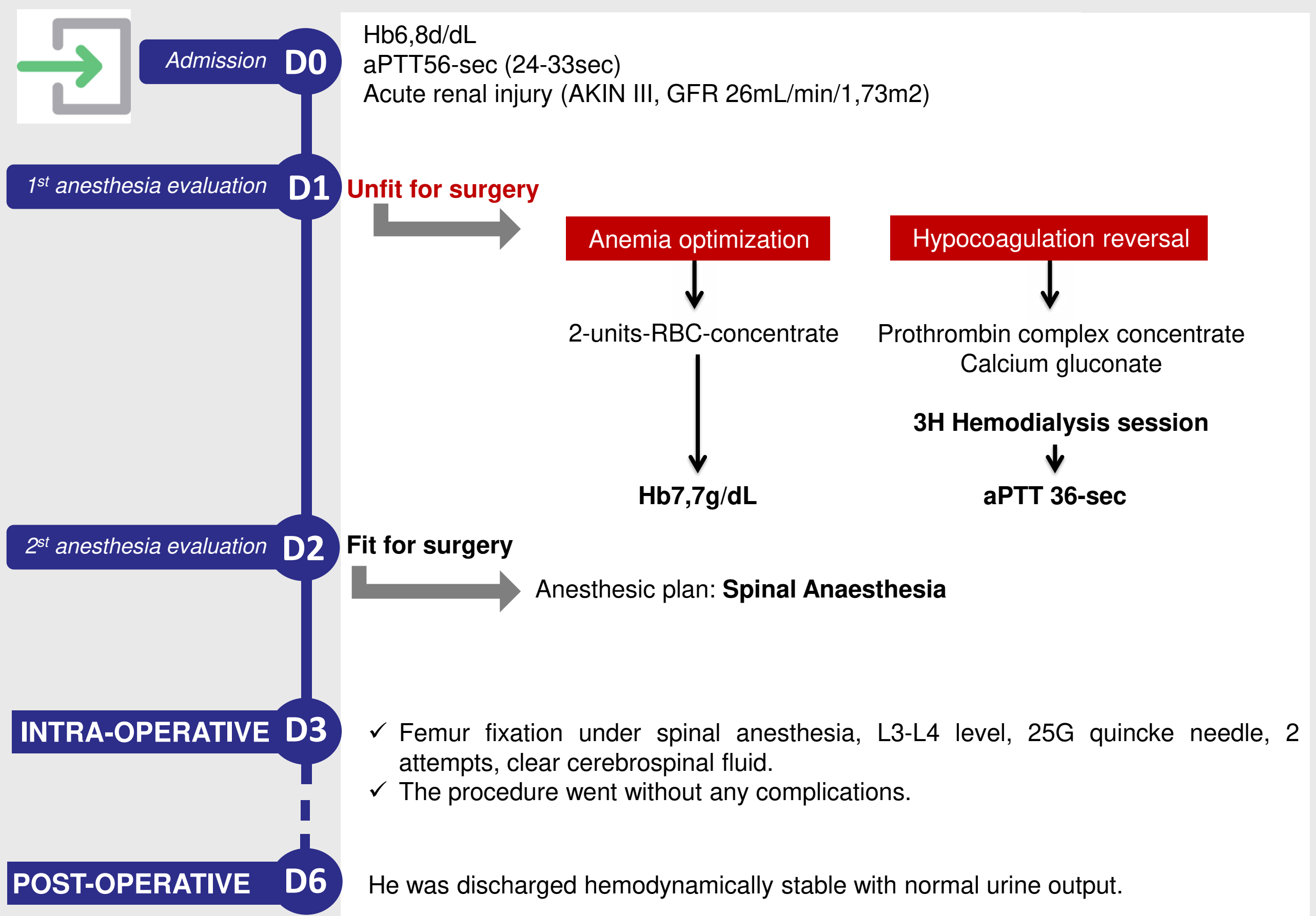
Hypertension  
Atrial fibrillation  
Chronic heart failure (NYHA IV)  
Chronic anemia  
COPD  
Radiation induced pneumonitis  
Type 2 respiratory failure

Left trochanteric fracture



**Surgical Procedure**  
✓ Left femur osteosynthesis

*Informed consent obtained*



## DISCUSSION

Orthopedic surgery has a high hemorrhagic risk and hypocoagulation is common among older orthopedic patients. Dabigatran hypocoagulated patients with impaired renal function (GFR < 30 mL/min/1,73m2), require at least a 5 days suspension. Dabigatran is the only anticoagulant that can be removed through hemodialysis. Regarding our patient we considered spinal anesthesia a safer option taking in account the risks related to anesthesia recovery, particularly ventilatory weaning. In patients hypocoagulated with Dabigatran, whose general anesthesia and airway related risks are increased, hemodialysis along with PCC are effective interventions to reduce dabigatran serum levels allowing neuraxial anesthesia.

1. Khadzhyrov D. et al - Effective elimination of dabigatran by haemodialysis. A phase I single-centre study in patients with end-stage renal disease. Thromb Haemost. 2013 Apr;109(4):596-605.