Management and Outcome of Patients with Undiagnosed Coagulation Disorders

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Background and goal of study: One of the main objectives of the preanesthetic evaluation is assessing the bleeding risk preoperatively. However, appropriate methods for ascertaining this risk remain subject to debate. A detailed history of bleeding and routine coagulation testing are used as a predictor for perioperative bleeding. The aim of our study is to describe the perioperative findings, management and outcome of patients with suspected coagulation disorders.

Materials and methods: Fifty-one patients, aged between 3 and 86 years, with no previously known hematologic disorder, were enrolled in this study. Medical history, physical examination and standard laboratory testing (Activated Partial Thromboplastin Time, Prothrombin Time/ International Normalized Ratio, platelet count) was performed to all patients. In addition special coagulation tests were requested and specific treatment was administrated if needed. There is a minimum follow-up on all patients of at least 3 months.

LABORATORY TESTING			
	APTT (M, SD)	INR (M, SD)	Platelet Count (M, SD)
Value	44,27 (9,86)	1,39 (0,11)	56 333 (22 003)

Results and Discussion: Fifty-one ASA I – III patients, evaluated in the preoperative program of Infanta Elena Hospital from September 2015 to September 2017, showed medical history y/or laboratory findings abnormalities: 10 patients (20%) referred bleeding history and 51 (100%) manifested abnormal coagulation tests. Fifty patients (98%) underwent specific tests and 29 (57%) patients were diagnosed with coagulation disorder: factor VII deficiency (6 patients), factor VIII deficiency (2 patients), Von Willebrand disease (4 patients), factor XI deficiency (2 patients), thrombocytopenia (3 patients), lupus anticoagulant (9 patients), coagulation altered for different reasons (3 patients). Twenty patients (39%) received treatment: Vitamin K preoperatively (8 patients), Tranexamic acid (4 patients), Desmopressin (3 patients) oralcorticosteroids (2 patients) recombinant factor VII (1 patient), fresh frozen plasma (1 patient), platelet pool (1 patient). All patients with positive lupic anticoagulant had standard antithrombotic prophylaxis with low molecular weight heparin. Forty-eight patients (96%) underwent surgical intervention and only 5 (10%) presented adverse events during the follow up.

Conclusions: Detection of coagulation disorders is crucial during the preoperative evaluation. Adequate treatment of important alterations ensures good outcome of potential life threatening or seriously disabling complications.

Disease	Number of Patients	Treatment	Complications Number of Patients
Von Willebrand Disease	4	No treatment: 1 patient Desmopressin: 1 patient Tranexamic acid with desmopressin: 2 patients	1 (bleeding)
F VII deficiency	6	Vitamin K: 4 patients Recombinant fVII: 1 patient Fresh Frozen Plasma: 1 patient (combined deficit of fVII and fXI)	N/A
F VIII deficiency	2	Vitamin K: 1 patient No treatment: 1 patient	N/A
F XI deficiency	2	Tranexamic acid with Vitamin K: 2 patients	N/A
Thrombocytopenia	3	Corticosteroids: 2 patients (autoimmune origin, Myelodysplastic syndrome) Platelet transfusion: 1 patient (alcoholic hepatopathy)	2 patients, bleeding
Positive lupic anticoagulant	9	Low molecular weight heparin: 9 patients	1 patient, bleedins 13 days after surgery
Different reasons	3	No treatment: 2 patients (pancreatitis, possible hemochromatosis) Vitamin K: 1 patient (hepatitis 2 weeks before surgery)	1 patient: hemorrhage, massive blood transfusion, coagulopathy

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2. Giancarlo Castaman and Silvia Linari Diagnosis and Treatment of von Willebrand Disease and Rare Bleeding Disorders J Clin Med. 2017 Apr; 6(4): 45.

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