Abstract: P2231

Acute massive pulmonary embolism treated with surgical embolectomy

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Topic(s):
Pulmonary Embolism

Citation:
Introduction: Massive pulmonary embolism (PE) is a life-threatening condition with a high early mortality rate despite diagnostic and therapeutic advances. A multidisciplinary approach with rapid diagnosis and early surgery is crucial in order to enhance survival in high-risk patients with acute massive PE. Case report: A 62 y.o woman presented to the ER complaining of palpitations started less then 6h ago with no chest pain or dispnea and was diagnosed with high rate paroxysmal atrial fibrillation (HR~120/min). The ECG showed AF with no specific changes, the troponin I (TPI) level was negative and a TTE revealed mildly dilated left atrium. Other lab results were within normal range (TBC and blood chemistry). Past medical history included HTN and diabetes type 2 for 10 years and 6 months respectively both on regular treatment and obesity. Also 2 months ago she was diagnosed with Hashimoto thyroiditis and close monitoring of TSH was recommended, but no treatment. An ECG performed at that visit showed sinus rhythm. Enoxaparin for anticoagulation and amiodarone i/v for cardioversion were started. After 24 h the pt was still in AF, with a controlled heart rate and no complains. However ECG changes were noticed (evolutive T negative waves in leads D1, D2, aVL, V3-V6). A D-Dimer was requested and came back negative, O2 saturation was 97%. The asymptomatic patient was transferred to the Cardiology ward for further evaluation. TPI remained negative. Due to cardiac risk factors and ECG changes, coronary angiography was performed and resulted normal. Electrical cardioversion was considered. The TSH level was undetectable. Both TEE and pulmonary angio CT were requested prior. Because of the ECG changes the CT was performed first and showed central and peripheral bilateral pulmonary artery clots present also in both atria auricles. Due to the massive thromboembolism (PE) unfractioned heparin was immediately started (aPTT 50-70s). A new TTE showed a PAP of 50 mmHg. Approximately 10h after heparin infusion, the pt developed dyspnea, tachypnea, cough, pleuritic pain and fever (temp 39.5-40? C). Considering the deteriorating conditions she was consulted with a cardiac surgery team in order to perform an emergency surgical pulmonary embolectomy (ESPE) despite the high risk. Within 24h, the pt underwent ESPE of the right and left pulmonary branches after incision of the pulmonary artery, as well as a clot embolectomy of the right and left atria auricles. She was put on an iv heparin regimen and recovered well. She was discharged 2 weeks later in good condition, a PAP of 40 mmHg, on acenocoumarol with persistent AF. 1.5 years later she is in NYHA class I, no readmission for PE, in sinus rhythm taking rivaroxaban. Discussion: We present the case of a pt with massive PE who underwent surgical embolectomy within 24h with signs of hemodynamic instability. Despite late surgery timing, she made a good recovery with no complications. The inhospital mortality rate remains high (25-30%) even in the most specialized centers.
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