CASE REPORT

ACUTE MASSIVE PULMONARY EMBOLISM TREATED BY ALTEPLASE

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ABSTRACT:

BACKGROUND: Pulmonary embolism is a common and some time fatal disease that continues to persist despite advancement in diagnosis and management. Pulmonary embolism (PE) is caused by emboli, which have originated from venous thrombi, travelling to and occluding the arteries of the lung. PE is the most dangerous form of venous thromboembolism, and undiagnosed or untreated PE can be fatal. Acute PE is associated with right ventricular dysfunction, which can lead to arrhythmia, haemodynamic collapse and shock. Furthermore, individuals who survive PE can develop post-PE syndrome, which is characterized by chronic thrombotic remains in the pulmonary arteries, persistent right ventricular dysfunction, decreased quality of life and/or chronic functional limitations. In patients younger than 55 years, the incidence of pulmonary is higher in females. Once deep venous thrombosis develops, clots may dislodge and travel through the venous system and the right side of the heart to lodge in the pulmonary arteries, where they partially or completely occlude one or more vessels.

CASE PRESENTATION: A 65 year old hypertensive male resident of Lahore was in usual state of health when he developed shortness of breath which was sudden in onset and gradually worsening. It was not associated with chest pain, swelling of legs, edema. Previously he was only hypertensive. He has no family history of such illness. On presentation his vitals show hypotension, tachycardia and tachypnea with drop in saturation. Investigations of the patient

Fig 1. ECG showing sinus tachycardia and S wave in lead 1, Q wave in lead III and inverted T wave in lead III.
carried out, blood investigation showed increase TLC.

D-dimer raised, trop positive, PT, aptt normal, Hb, PLT count were also normal. ECG OF THE Patient showed sinus tachycardia with large S wave in lead 1, Q wave in lead 3 and inverted T wave in lead 3. (Fig-1) Echocardiography of this patient showed dilated RV with intact LV systolic function. (Fig-2) X-RAY of the patient shows Hampton hump sign (wedge shape peripheral air disease). (Fig-3) CT pulmonary angiogram done which shows bilateral extensive pulmonary
embolism involving almost entire left main pulmonary artery with extension into distal right pulmonary artery. (Fig-4) there was poor opacification of bilateral lower limb deep veins for which Doppler bilateral lower limb planned. On above these finding patient was treated on the lines of pulmonary embolism with injection TPA in
infusion. Patient symptom improved and was discharged on oral anticoagulant with follow up care advise.

DISCUSSION:

We report an interesting case of PE. Although cases of DVT have been associated with this syndrome in the past, only a few cases have presented with acute bilateral pulmonary emboli. This vascular variant should be considered with high suspicion in left lower extremity DVT in young patients with no other etiologies to justify thrombosis. A multidisciplinary team input from specialists is the key to provide primary care fundamentally in poorly defined management strategies. Identification of the triggers of thromboembolism is crucial to prevent disease progression and recurrence. In pulmonary embolism with or without infarct in haemodynamically stable patients, anticoagulation should be considered as first-line therapy to yield optimum outcomes.

CONCLUSION:

Pulmonary embolism is a life threatening condition. Timely diagnosis and treatment is key to success. Alteplase (TPA) has excellent results in terms of resolution of clot.

References:


