A case of simultaneous sinus venous thrombosis and bilateral pulmonary embolism with OCP use

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Case Summary:

A 45-year-old female presented to the ED with right arm weakness, aphasia, and syncope. She is known to have hypertension with medication noncompliance and abnormal uterine bleeding with a recent OCP use. She was diagnosed with sinus venous thrombosis and pulmonary embolism. Physical examination is remarkable for spontaneous eye opening but no response to commands along with global aphasia and a complete drift of the left lower extremity. Her GCS was 11/15. Otherwise, the rest of her physical examination was unremarkable. Stroke code was announced, and the case was discussed with the neurologist. The patient was managed with a heparin bolus, heparin infusion, and Keppra. Blood pressure was maintained via nicardipine to keep the systolic BP under 140. Blood work done and patient went for imaging. Patient was not eligible to tPA since she arrived past the 4.5-hour window. The patient ultimately underwent a craniectomy. Cerebral sinus venous thrombosis is a potentially life-threatening neurological disorder. It often eludes timely diagnosis due to nonspecific and ambiguous clinical and radiological manifestations. In a study of 465 women, 65% of cases with CSVT were linked to risk factors including pregnancy, puerperium, OCP use, and hormonal replacement therapy. Patients may present with diverse symptoms depending on the site and extent of thrombosis. This includes elevated intracranial pressure alongside focal neurological deficits, seizures, and diffuse encephalopathy. Most patients respond well to anticoagulant therapy, but some may not improve and may worsen despite treatment. With the broad presentations of a sinus venous thrombosis, an emergency physician must stay mindful with differentiating an SVT from other neurological manifestations that may present similarly. This includes proper history taking and developing an effective management plans tailored for the specific patient.