



## Phenytoin induced Thrombophlebitis

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### ABSTRACT

Thrombophlebitis is a circulatory condition that occurs when a blood clot, develops due to venous inflammation and inhibits the blood flow. Most commonly, thrombophlebitis affects the superficial veins of the extremities (arms and legs). Phenytoin is used to control certain types of seizures, and to treat and prevent seizures that may begin during or after surgery to the brain or nervous system. Phenytoin is in a class of medications called anticonvulsants. It works by decreasing abnormal electrical activity in the brain. Here I report a case of a male with phenytoin-induced thrombophlebitis.

Keywords: Phenytoin, Thrombophlebitis, Seizures.

### INTRODUCTION:

Thrombophlebitis is an inflammatory process caused by a thrombus formed in veins due to different factors. It mostly occurs in the lower extremities. If it occurs in the superficial vein called superficial thrombophlebitis. If it occurs in the deep vein, it is called deep vein thrombosis.<sup>[1]</sup>

There are different **types** involved they are:

1-Acute: Due to IV cannulation, trauma, minor infections, hypercoagulability.

2-Superficial thrombophlebitis: occurs in the veins located under the skin.<sup>[2]</sup>

Superficial thrombophlebitis on the lower extremity.

Superficial thrombophlebitis on the upper extremity.

Thrombophlebitis migrans: multiple inflammations in different areas.

### Causes:

The causes of superficial thrombophlebitis are different for the lower and upper extremities. For the lower extremity, the causes are often a combination of a suboptimal condition of the veins and disease predispositions, as well as exposure to risk factors, all of which include:<sup>[3]</sup> varicose veins, Trauma, immobilization, smoking, obesity.<sup>[3]</sup>

### Symptoms:

Swelling of the body part

Pain

skin redness

Warmth and

Tenderness of the area around the vein.<sup>[1]</sup>

### Diagnosis:

Thrombophlebitis can be diagnosed based on a clinical examination. If the above-mentioned symptoms are visible/palpable, initial diagnostics can include the comparison of pulse palpation proximal and distal to the affected area. This test is positive if the pulse is barely or not at all detectable distal to the affected area. To ensure the diagnosis and to differentiate phlebothrombosis, an ultrasound (e.g., Doppler ultrasound) can be used.<sup>[4]</sup>

### Complications:

Complications from superficial thrombophlebitis are rare. However, if you develop DVT, the risk of serious complications increases. Complications might include:

- **Blood clot in the lungs (pulmonary embolism).** If part of a deep vein clot becomes dislodged, it can travel to your lungs, where it can block

an artery (embolism) and become potentially life-threatening.

- **Lasting leg pain and swelling (post-phlebitis syndrome).** This condition, also known as post-thrombotic syndrome, can develop months or years after you've had DVT. The pain can be disabling.[1]

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### CASE REPORT:

A 65yr old male patient came to the hospital with chief complaints of seizures altered sensorium since 1 day, patient developed seizures (1 episode) for about 5-10min. H/O Frothing from mouth, tongue bite, up rolling of eyes.

On examination the BP-120/80mmhg, PR-96bpm, CNS- S<sub>1</sub> S<sub>2</sub> positive, GRBS- 137mg/dl. Laboratory findings: Serum creatinine- 2.96mg/dl, Serum potassium- 142meq/l, Serum chloride- 107meq/l, Blood urea- 143.48mg/dl, protein- 7.23gm/dl, Albumin- 2.88gm/dl, Total serum bilirubin- 0.39gm%. Medical history: K/C/O Epilepsy on medication for 5 months. Based on examination and laboratory findings the patient was diagnosed with ALTERED SENSORIUM DECREASE EVALUATION WITH METABOLIC ENCEPHALOPATHY.

Medications prescribed: DAY1-Inj.Eptoin 300mg in 100ml Ns IV TID, Inj.Optineuron IV TID, Inj.Zofer 4mg IV TID, Tab-Folvite 5mg OD, Inj.Mannitol 20% IV TID, Tab.Aspirin 75mg OD. DAY2- Continued the same drugs of day1 along with them the physicians added Tab. Atrovas 40mg OD. DAY3- Continue the same treatment along with Inj.Lasix 40mg.

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### DISCUSSION:

On discussion regarding the patient details, we found an Adverse drug reaction during the treatment. The suspected ADR is Eptoin 100mg IV BD. While coming to brief description of ADR were Patient was K/C/O epilepsy since 5months he came with C/O seizures and altered sensorium since a day before coming to the hospital for which he was treated with Eptoin 100mg IV BD for which he developed venous irritation and was diagnosed as phenytoin induced thrombophlebitis. Management- Eptoin 100mg IV was stopped for 1day and they started during administration through IV cannula.

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### CONCLUSION:

Phlebitis is the inflammation of a vein. Veins are blood vessels in your body that carry blood from your organs and limbs back to your heart. Phlebitis often occurs in the legs but can affect veins in other parts of your body, as well. Phlebitis may be caused by damage to the vein wall or by a blood clot that blocks a vein. Inflammation caused by a blood clot, or thrombus, is called thrombophlebitis. Blood clots can occur in veins near the surface of the skin or in veins deep within your muscles. If a blood clot is in a deep vein, it's called deep vein thrombophlebitis. The treatment of superficial thrombophlebitis should improve local symptoms while preventing the development of complications such as venous thromboembolism.

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