

**PP102 “WHY HER HAND BECOME
PURPLE?”. CASE REPORT OF A
RARE PURPLE GLOVE
SYNDROME FOLLOWING
INTRAVENOUS PHENYTOIN
ADMINISTRATION**

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INTRODUCTION:

Phenytoin is a common drug and widely used in Emergency setting for therapeutic and prophylactic purposes in patient with convulsion. Cardiac arrhythmias and hypotension are few common side effects related to its usage. We share a case of a patient who developed a Purple Glove Syndrome (PGS), which is a rare complication secondary to Phenytoin usage.

CASE REPORT:

An 83 years-old lady, underlying Epilepsy, presented to our Emergency and Trauma Department (ETD) with history of multiple fitting episodes at home, not compliant to medications. Upon arrival to ETD, patient was asymptomatic. However, as she developed another seizure during observation in ETD, we decided to load her with IV phenytoin. After around 50 minutes of infusion, patient's right hand started to turn purple. It was associated with swelling over the limb with no compromise over the pulse and capillary refill time. ETD team decided to stop the IV Phenytoin infusion, elevating the right hand and applying cold compression. She was then treated as Purple Glove Syndrome (PGS) secondary to Phenytoin infusion and was admitted to ward for observation. No surgical or pharmacological intervention was done, and she was discharge home well after completing seizure treatment.

DISCUSSION & CONCLUSION:

Purple Glove Syndrome (PGS) is an uncommon complication of Phenytoin infusion and rarely reported. It is defined as pain, purple-bluish discoloration and edema of limb receiving the drug. The hypothesized theory behind its occurrence was due to its high alkalinity (pH 12) with sodium hydroxide, propylene glycol, and ethanol makes it very insoluble causing leakage into soft tissue. Risk factor of developing one included old age, female, infusion rate and small gauge IV access. Management of uncomplicated PGS is mainly supportive, while some may need an urgent fasciotomy and amputations.