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Case Study

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LOW MOLECULAR WEIGHT HEPARIN INDUCED ECCHYMOSIS- A CASE REPORT

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ABSTRACT

Low-molecular-weight heparins (LMWHs) are a new class of anticoagulants derived from unfractionated heparin (UFH). We report a case of ecchymosis/hematoma in a geriatric female patient who had no previous history of drug allergies or cutaneous reactions and was presumably caused by enoxaparin. We describe a case of low molecular weight heparin induced ecchymosis in a geriatric patient which resolved soon after the withdrawal of the drug. To the best of our knowledge, this is the first report of this kind in the literature.

KEYWORDS: Low molecular weight heparin, ecchymosis.

INTRODUCTION

Low-molecular-weight heparins (LMWHs) are a new class of anticoagulants derived from unfractionated heparin (UFH).[2] LMWHs are primarily used for the treatment of acute ST segment elevation myocardial infarction, deep vein thrombosis and pulmonary embolism. Adverse effects associated with enoxaparin range from nausea or vomiting to severe hemorrhages while cutaneous reactions are rare. [3] We report a case of ecchymosis/hematoma in a geriatric female patient who had no previous history of drug allergies or cutaneous reactions and was presumably caused by enoxaparin. The most common adverse events after subcutaneous administration of low molecular weight heparin is thrombocytopenia, anemia, bruises and the rare ones are ecchymosis and/ or hematoma.[1]

CASE REPORT

An 83 year old female patient was admitted with the complaints of pain and restriction of movement of right hip joint due to fall. She was also presented with the complaint of an old injury on her forehead due to history of another fall from bed in the same month. The patient is a known case of alzhemier's disease, Left bundle branch block (LBBB), Hypertropic obstructive cardiomyopathy (HOCM), chronic obstructive pulmonary disease (COPD). On examination, patient was found to be conscious oriented, afebrile and stable. On local examination patient had hematoma around lower abdomen and right femur, old STI on forehead. On performing USG it showed poor acoustic window. Cardiac marker Troponin 1 was found to be 0.353. Patient was then admitted under ortho unit for open reduction internal fixation (ORIF). Thomas splint application, foleys catheter to be inverted. Patient was referred to neurosurgery and cardiology clearance. Patient had pain around the epigastric region which was not radiating.The patient was already under T. Atorvastatin 10mg, T. Ecospirin 150mg, T. Telmisartan 40mg, T. Tacrolimus 5mg.

When the patient was admitted in hospital, she developed swollen leg atrial fibrillation. She was then shifted to CCU and the following mediations were given. T. Ecospirin 150mg, T.Clopidogrel 75mg, T.Atorvastatin, T.Glyceryltrinitrate 2.6 mg, enoxaparin 0.4 units IV, Pantoprazole 40mg IV, Metoprolol 25mg IV. After 2 days of administration of enoxaparin 0.4ml/ SC, ecchymotic patches were identified in various parts of the body. Soon the medication was stopped and on further examination the ecchymotic patches progressively faded.

DISCUSSION

Drug induced cutaneous ADRs, in general, are observed in approximately 1% of patients. [3] In this case ecchymotic patches were observed after the

administration of Low molecular weight Heparin (LMWH). They are characterized by flat, blue or purple patch measuring 1 cm or more in diameter. The main reason why ecchymosis occurs is due to leakage of blood from a broken capillary into surrounding tissue under the skin. It develops from days to weeks after drug exposure and typically takes between 1- 3 weeks to resolve. It is common to see ecchymosis in highly active children and older adults because the skin thins and the capillary walls grow more fragile with age.[4] They may last up to two weeks after cessation of the culprit medication. Although they are generally not life-threatening, they can considerably reduce the quality of life of affected patients.

CONCLUSION

The major adverse effects associated with LMWHs include bleeding, anemia, thrombocytopenia, elevation of serum aminotransferase and injection site hemorrhages. Although there is less evidence of enoxaparin induced ecchymosis. To the best of our knowledge, this is the first report of this kind in the literature.

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