Case Report

Meropenem Induced Skin Rashes: A Case Report

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ABSTRACT

Meropenem is used to treat bacterial causing infections like abdominal infections, skin bacterial). Meropenem is in a class of antibiotics. Skin eruption (or) skin rashes with meropenem is a rarely documented phenomenon that may be difficult in the contest of often complicated clinical presentation. Allergic reactions to antimicrobial are considered as type-B (adverse) reaction-pharmacologically unpredictable non-dose dependent and often immune-mediated. Type B-reactions are further divided into type I through IV in the classification system. More of the patients were reported with type I (penicillin) allergy 2%risk to cyclosporine. <1% of carbapenems & 0% to monobactams, type-II (cytotoxic), type-III (immune complex) and type-IV (cell-mediated). Here we report a case of a young adult female with acute febrile illness with thrombocytopenia with bleeding manifestation and abdominal pain initiated with meropenem presented with non-blashing rashes throughout the primary week of treatment initiation. Stressing the importance of clinicians remaining alert for abnormal activity symptoms.

Keywords: Meropenem, skin rashes, infections, adverse drug reactions.

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INTRODUCTION

Meropenem is a board – spectrum bactericidal antimicrobial agent with activity against both gram-positive and gram-negative organisms, including both extended-spectrum and beta-lactamase-producing gram-negative roads used for severe community, acquired pneumonia, intra-abdominal infections[1]. The most commonly seen adverse effects of meropenem were skin rashes, headache, vomiting, nausea, diarrhea.[2] Meropenem was introduced into the market in the year 1996, which is more active against gram-negative bacilli.[3] Meropenem causes bacterial lysis in the susceptible organism by binding with high affinity to the higher molecular weight penicillin-binding protein and also with gram-negative bacilli such as E.coli, Pseudomonas aeruginosa.[4] Skin rashes are a rare phenomenon of antimicrobial therapy. Drugs associated with skin rashes are certain antibiotics, (including penicillin's, sulfa drugs, cephalosporin's, carbapenems.[5] However, in a human abuse potential study meropenem produced some type of abnormal response. Adverse drug reactions are major consequences and health concerns, occur in 0.1% to 1% of patients taking medicine. Drug reactions for hospitalized patients have been documented 0.3% and adverse skin reactions due to drug exposure are a common problem. Drug-induced skin disorders are often classified as acute or chronic. Acute diseases include erythematous eruptions, anaphylaxis, fixed drug eruptions, hypersensitivity, SJS, TEN (toxic epidermal necrosis's), chronic disorders including drug-induced lupus, drug-induced acne, and pigmentary changes.[6]

CASE REPORT

A 19 years old woman with fever (99c) & chills was referred to our hospital. She had noticeable jaundice & scleral ictus, she also reported a 2 days history of epigastric pain radiating to the right upper quadrant, a mild cough, and urine discoloration. In the primary laboratory, abnormal sonography showed gallbladder wall thickening (10mm). Based on the clinical laboratory it was the diagnosis of cholecystitis. For viral and autoimmune hepatitis was required they were all negative. Based on the fever and abdominal pain, meropenem at a dose of 1 gram was administrated twice a day to a patient until the result of the lab test report. After the 6th dose on the 3rd day of meropenem, the patient was developed with skin rashes on the toung. On the next day on the administration of another dose of meropenem, there is a spread of skin rash over the mouth (fig-1). In our case scenario the patient has been adequately controlled meropenem 1GM to monocef 1GM, for 2 weeks without symptoms of skin rashes After the discontinuity of the drug there is a recovery of the rash. The patient was advised with another antibiotic. The rash over the mouth was treated with beclometasone ointment. At the review on patient physical examination or

assessment, the patient reported that he followed treatment plan and felt that recovery of skin rashes over the body and reduced epigastric pain. He returned to his baseline after two weeks of his discharge.

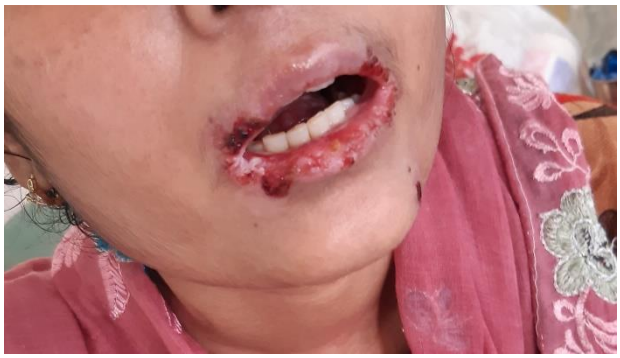

Figure 1

DISCUSSION

Meropenem is a broad-spectrum antibiotic that belongs to the family of carbapenem. Meropenem is approved for use in complicated intra-abdominal infections, skin complications, and bacterial meningitis in the US.[7] Meropenem is approved by food and drug administration for intra-abdominal infections and meningitis.[8] Meropenem has a hypersensitivity rate of 11% for those with a reported or documented with other antibiotics.[9] The penicillin, cephalosporin's, and carbapenems each have different characteristic bicyclic core structures, the chemical entity was more responsible for beta-lactam hypersensitivity. There are increased hypersensitivity reactions with penicillin and cyclosporine have been documented more rate.[10,11,12] The incidence of carbapenem-associated hypersensitivity reactions in the population was estimated to be <3%.[13] Current literature supports the use of meropenem 1gm/every 8hrs for several infections based on an acquisition of cost.[14]

CONCLUSION

The clinician should be cautioned whenever meropenem is administered to patients who are allergic to drugs. They should weigh the benefits and risks that accompany treatment and chose whether therapy with antibiotics is necessary (or) not. Further investigation of skin rash adverse effects of meropenem identified then dose tapering should be done or alternate drugs should be started.

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