Int J Pharma Res Health Sci. 2016; 4 (5): 1433-1434
DOI:10.21276/ijprhs.2016.05.18
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CODEN (USA)-IJPRUR, e-ISSN: 2348-6465

PHS Scientific House
PHARMAHEALTHSCIENCES

International Journal of Pharma Research and Health Sciences

Available online at www.pharmahealthsciences.net

Case Study

Atazanavir/Ritonavir Induced Maculopapular Rash in Post Exposure Prophylaxis – A Case Report

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ARTICLE INFO

Received: 19 Sep 2016
Accepted: 02 Oct 2016

ABSTRACT

Atazanavir/ritonavir has been generally well tolerated. However, rash has been reported in 1% to 6% of study participants. To date, there are few publications describing Atazanavir/ritonavir associated dermatological adverse events in any detail. We present the case of severe rash that occurred shortly after the initiation of Post Exposure Prophylaxis with atazanavir/ ritonavir in a health care professional. Clinicians should be aware of the safety profile of Post Exposure Prophylaxis drugs before administration.

Keywords: Post Exposure Prophylaxis, rashes, Atazanavir/ritonavir,

1. INTRODUCTION

Atazanavir (ATV) is an azapeptide protease inhibitor licensed for the treatment of HIV.[1] ATV is primarily metabolized by cytochrome P450 (CYP450) 3A and also inhibits this hepatic enzyme. ATV concentrations are increased with food and, thus, the drug should be administered with a meal. ATV absorption is pH-dependent and concomitant administration of gastric acid modifiers should be avoided. Ritonavir-boosted atazanavir, in combination with two nucleoside (or nucleotide) reverse transcriptase inhibitors, is currently one of the recommended options for first-line HIV therapy. ATV has a pharmacokinetic profile that permits once daily administration. [2] Additionally, it is reported to cause fewer abnormalities in the plasma lipid profile than other protease inhibitors. [3]These features make ATV an attractive option

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for patients. In clinical trials, ATV has been generally well tolerated. However, rash has been reported in 1% to 6% of study participants. To date, there are few publications describing ATV associated dermatological adverse events in any detail. [4]

The current report presents the case of severe rash that occurred shortly after the initiation of therapy with Atazanavir/ritonavir in a health care professional when used as an Post Exposure Prophylaxis.

2. CASE REPORT

A 28 year old female was started on Post Exposure Prophylaxis (PEP) on 10th May, 2015. She had an occupational exposure while removing the I.V. canula of a HIV infected child. She had a superficial abrasion in the little finger with no visible bleeding from the site of exposure. But she had noticed a tinge of blood in the tip of stellate. A combination of Tenofovir 300 mg,

lamivudine 300 mg, ritonavir 100 mg and atazanavir 300 mg orally daily was chosen as PEP based on adverse effect profile and severity of infection in treating child.

On 8th day of PEP she developed icterus, her Total Bilirubin was 2.5 mg/dl, and SGOT, SGPT were found to be normal and on 9th day she developed generalized macula-papular rashes, reddish discoloration with itching. Her medical history was nothing significantly contributing to her presenting complaints. On physical examination, she was afebrile, no pallor, cyanosis, clubbing, lymphadenopathy, Cardio vascular system – S1 S2 Normal, with no murmers, Respiratory System – B/L NVBS +, Per Abdomen – Soft, no hepatospleenomegaly, no tenderness, vitals were stable.

The Naranjo ADR Probability Scale indicated a probable relationship between the rash and atazanavir therapy. A skin biopsy was refused, and immunoglobulin E (IgE) levels were not measured. She stopped her PEP on 10th day and the rash subsided eventually after the discontinuation of treatment and administration of antihistamine drugs. Re-challenge with Atazanavir/ritonavir was not performed because of the patient's previous history of severe drug hypersensitivity consulted dermatologist and was confirmed as drug related rash. She was treated with Hydroxyzine 25 mg stat and Phreniramine 25 mg TID for 1 day, she was continued with tenofovir and lamivudine. On 8th day DNA PCR test was found to be negative.

3. DISCUSSION

Adverse cutaneous reactions are a treatment limiting adverse effect of antiretroviral drugs, and are mainly seen with reverse transcriptase inhibitors (nevirapine, abacavir and efavirenz). The factor point to the probable responsibility of atazanavir in the cutaneous reaction described here. The mean interval between atazanavir introduction and clinical onset was eight days. Clinicians must be aware of adverse cutaneous reactions to atazanavir, which may require treatment discontinuation. HIV-infected patients have a higher risk of developing cutaneous reactions than the general population, which has a significant impact on patients current and future care options. [5]

The product monograph for atazanavir reports that rash of all grades of severity, regardless of causality, has been observed in 21% of atazanavir clinical trial participants. It is also stated in the monograph that cases of Stevens- Johnson syndrome and erythema multiforme have been documented. [6] The frequency of these serious events is not quantified. It is not reported whether the patients who developed these reactions were concomitantly receiving other medications that may have been temporally associated with rash onset.

Our case had no rechallenge status and it is interesting to know that the incidence of atazanavir and ritonavir combination causing rashes in an HIV Non Reactive person when used as PEP.

4. CONCLUSION

Clinicians should be aware of safety profile of Post Exposure Prophylaxis drugs before administration and be prepared to manage it effectively. Withdrawal of suspected drug is a must for good prognosis.

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Conflict of Interest: None

Source of Funding: Nil