

Losartan Induced Acute Urticaria

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Sir,

Losartan is an antihypertensive drug that belongs to the class of angiotensin receptor blockers (ARB). Earlier, it was supposed to be free from adverse effects like cough and angioneurotic oedema, that are commonly seen with angiotensin converting enzyme inhibitors (ACE-I). Later, however, few cases of angioedema, urticaria and anaphylaxis have been reported with losartan too.¹⁻³ Losartan is a widely prescribed drug in India, however, losartan induced urticaria has rarely been reported from the Indian subcontinent. We therefore report this case of urticaria caused by losartan which was confirmed with oral rechallenge.

A 23 year old male patient presented to the dermatology OPD with complaints of generalized, reddish, itchy skin eruption for one day. He reported that he developed these lesions one hour after taking single tablet (first dose) of losartan that was prescribed by physician for hypertension. On

examination, multiple, small-to-large wheals were present all over the body. There was no swelling around eyelids or lips. There was no difficulty in breathing, throat discomfort, pain abdomen, fever and cough. There was no wheezing, hypotension and mucosal involvement. Based upon the clinical signs and symptoms, a diagnosis of acute urticaria was made. Because of strong temporal association with intake of losartan, losartan was stopped and antihypertensive therapy was changed to amlodipine. Patient was started on oral steroids and antihistamines and recovered in one week.

Taking into consideration the rarity of losartan induced urticaria, absence of any life-threatening features and cardioprotective and renoprotective action of losartan, we decided to rechallenge the patient with losartan. An informed consent was taken, and patient was given 25 mg of losartan orally after i.v cannulation, keeping all emergency drugs ready. After approximately 40 minutes of drug intake, patient developed generalized itching with urticaria. Again, there was no angioedema or systemic symptom and reaction was well controlled with steroids and antihistaminics (Figure 1 a and b). Patient was then advised not to take losartan in future and was

continued on amlodipine.

Urticaria after administration of losartan is a rare event, noticed in post-marketing studies.⁴ In two of the previously reported cases, patients had severe, life-threatening systemic involvement.^{2,5} In both these cases, therefore, rechallenge was not done. Our patient was fortunate enough to have only skin lesions. There was no sign or symptom suggestive of angioedema. Also, since there was no life-threatening feature, we decided to go for an oral rechallenge with losartan, which turned out to be positive. Naranjo score was calculated to be eight (probable).

The mechanism of ARB-induced angioedema and urticaria is largely unknown. It now seems that the earlier hypothesis that ARB administration does not result in increased bradykinin levels might be incorrect. Some recent studies have shown that losartan may increase bradykinin levels; this might contribute to losartan induced angioedema.⁶ It is also suggested that this might be a class effect of ARB, hence administration of other ARB should be done cautiously.

This case highlights the importance of recognizing an uncommon adverse effect of a common drug. Oral rechallenge under close medical supervision is helpful to establish causality in such adverse drug reactions (ADR).

References

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Fig 1: (a) Development of generalized urticaria after administration of losartan; (b) Resolution of lesions after administration of steroids and antihistaminics