

# Losartan Induced Vasculitis and Anaemia: A case report in tertiary care hospital

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## ABSTRACT

**Background:** Losartan most commonly used in the treatment of hypertension, but the prolonged use of losartan causes the adverse effect like anemia and uncommon adverse effect like vasculitis. **Objectives:** To report losartan induced adverse effect like anemia and vasculitis. **Result:** A case of 23 year old male patient receiving losartan since last 3 months for treatment of hypertension and he was admitted in hospital with complain of painful vesicular lesions. Complete blood count test revealed haemoglobin level of patient reduced to 8.1gm/dl. **Conclusion:** Our report suggests the possibility of developing vasculitis and anemia with losartan.

**Key words:** Hypersensitivity, Diabetes, Adverse drug reaction, Hypertension, Losartan.

## INTRODUCTION

Losartan is an angiotensin receptor blocker, it blocks the AT<sub>1</sub> then AT<sub>2</sub> receptors most commonly used drug in the treatment of hypertension, but the prolonged use of Losartan causes the adverse effects like anemia and uncommon adverse effect like Vasculitis.<sup>1,2</sup> Here, we describe a patient who developed vasculitis and anemia due to Losartan.

## CASE REPORT

A 23 year old male patient admitted in male medical ward in HSK hospital and research Centre, Bagalkot on 4<sup>th</sup> May 2013 with complaints of painful vesicular lesions on face since last 5 days and vomiting since last 4 days. Lesions are 4 in number on right side of face, 2 lesions present at the maxilla and mandible, and left side, 2 lesions present at the maxilla and lie of mouth (Figure 1). Initially lesions were of small in size and gradually progressed. He was a known case of diabetes mellitus and he was under treatment with insulin since 10 years and also

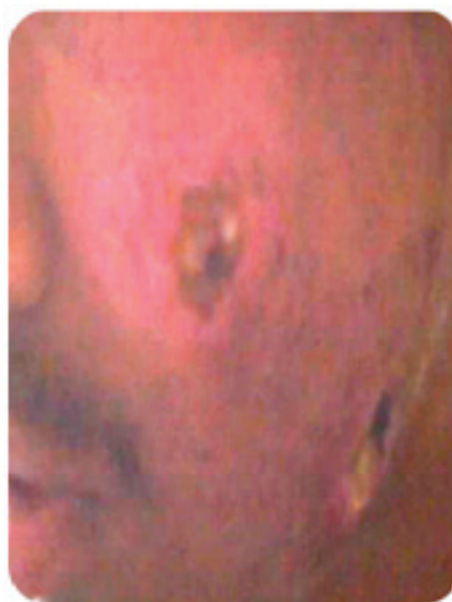


Figure 1: Vasculitis on left side of face

losartan since last 3 months. During general physical examination patient was moderately built, conscious and co-operative and his B.P was 130/90 mmhg, pulse were 96 b/min and bilateral pitting edema was present.

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Laboratory investigation reports in first day were as follows, creatinine level was elevated (5.3 mg%), hemoglobin decreased (8.1 gm/dl) and total WBC count increased (19000 cells/cumm) and urine culture showed increased pus cells (20-25/hpf), epithelial cells (2-3/hpf), RBC (18-20/hpf) and on second day creatinine level elevated (4.2 mg%), on 10<sup>th</sup> may urine culture showed increased pus cells (2-4/hpf), epithelial cells (1-2/hpf) and RBC (20-25/hpf)

Based on the above subjective and objective evidence diagnosis was made as “Diabetes with polycystic kidney disease with hypertension with chronic renal failure, multiple abscess over the face with sepsis with anemia with urinary tract infection”. Patient was treated with Inj H.Actrapid, Inj Amoxicillin+Clavulonic acid, Tab Trypsin+Chymotrypsin, Tab Purifloxacin 600 mg, Tab Losartan 50 mg, Tab Amlodipine 5 mg, Tab Tramadol+Paracetamol, Tab Rabeprazole+Itopride, Inj Pantoprazole 40 mg, Inj Ranitidine, Tab Linezolid. Patient was taking Losartan for past 3 months. Based on clinical suspicion of losartan potassium induced vasculitis drug was withdrawn after first day itself and treatment started with amlodipine. Gradually progression of vesicular bullous lesions on his face reduced subsequently. Losartan is also associated with anemia. Complete blood count test revealed haemoglobin level of patient reduced to 8.1 gm/dl.

## DISCUSSION

Vasculitis is an inflammation of the blood vessel wall and its fibrinoid necrosis.<sup>3</sup> Diagnosis of specific forms of vasculitis become difficult due to many etiological factors involved in vasculitis. Losartan associated with adverse effects like impaired renal function, rash, urticaria, pruritus, angioedema, vasculitis, hyperkalemia, myalgia, arthralgia and raised liver enzyme values may occur. Henoch-Schönlein purpura has also been reported<sup>4,5</sup> in patients taking losartan; in one case the Henoch-Schönlein purpura recurred on rechallenge. Atypical cutaneous lymphoid infiltrates also developed in patients receiving losartan for hypertension<sup>3</sup>. In both cases the lesions disappeared within a few weeks of stopping the drug. Symptomatic anemia reported<sup>6</sup> in a patient with a renal transplant 6 weeks after starting therapy with

losartan. Decreased hemoglobin concentrations have also been reported<sup>7</sup> in patients with severe renal impairment undergoing hemodialysis

In our case report vesicular lesions observed on face of patient and decreased hemoglobin suggestive of losartan induced vasculitis and anemia respectively. Patient showed improvement only after withdrawal of Losartan i.e. dechallenge was positive.

## CONCLUSION

In conclusion our report suggests the possibility of developing vasculitis and anemia with losartan which was a possible ADR according WHO-UMC system and Naranjo causality assessment scale. Therefore until further data are available careful assessment required for hypertensive patients receiving losartan and also more data is required to know the typical characteristics and risk factors associated with losartan induced vasculitis and anemia.

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## CONFLICT OF INTEREST

The authors have no conflicts of interest.

## ABBREVIATION USED

ADR:	Adverse Drug Reaction
HSK:	Hanagal Shri Kumareswar
B.P:	Blood Pressure
WBC:	White Blood Cell
RBC:	Red Blood Cell
Inj:	Injection
Tab:	Tablet

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