

**Ageusia associated to treatment with amitriptyline and terbinafine****V. P. Jerath<sup>1</sup>, Megha Sood<sup>2\*</sup>**<sup>1</sup>Dr. Jerath's Skin and VD Clinic and Allergy Centre, Jandhar City, Punjab, India,<sup>2</sup>Department of Pharmacology, Punjab Institute of Medical Sciences, Jalandhar City, Punjab, India**Received:** 08 March 2014**Accepted:** 26 March 2014**\*Correspondence to:**

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**ABSTRACT**

Ageusia is a rare condition characterized by loss of taste functions of the tongue. A large number of conditions may be responsible for causing ageusia. Adverse effects of drug therapy are the most common cause for the loss of taste. Ageusia can have a significant effect on the quality of life of patients and can lead to loss of appetite, weight, and may require discontinuation of drug administration in already compromised patients. We present two cases of ageusia one associated with amitriptyline in a patient with endogenous depression and the other with terbinafine in patient with tinea unguium.

**Keywords:** Ageusia, Amitriptyline, Terbinafine**INTRODUCTION**

Ageusia is a rare condition characterized by loss of taste functions of the tongue. A large number of conditions may be responsible for causing ageusia, which include damage to the lingual and glossopharyngeal nerve, dietary deficiencies, hypothyroidism, diabetes mellitus, local injury, and inflammation.<sup>1</sup> Adverse effects of drug therapy are the most common cause for the loss of taste.<sup>2</sup> Some of the drugs, which have been implicated include: antiepileptic drugs (phenytoin, pregabalin,<sup>3</sup> and carbamazepine<sup>4</sup>), Angiotensin converting enzyme inhibitors, clarithromycin, terbinafine,<sup>5</sup> clopidogrel,<sup>6</sup> and amitriptyline.<sup>7</sup> Ageusia can have a significant effect on the quality of life of patients and can lead to loss of appetite, weight,<sup>8</sup> and may require discontinuation of drug administration in already compromised patients.

**CASE REPORT**

We present two cases of ageusia one associated with amitriptyline in a patient with endogenous depression

and the other with terbinafine in patient with tinea unguium.

First case is of a 51-year-old male suffering from endogenous depression. He presented to the skin *out-patient department* (OPD) with the complaint of loss of salty taste sensation for last 4 months. There was a complete loss of taste sensation to salt with no effect on bitter, sour, and sweet taste. Neurological and gastrointestinal evaluation did not show any abnormality. Evaluation of olfactory function was also normal. The drug history of the patient showed that he had been on various medicines for the management of endogenous depression for last 10 years. For the last 1-year, he was taking amitriptyline 100 mg daily along with alprazolam SOS. Ageusia is a rare adverse effect of amitriptyline. Hence, it was suspected that loss of salty taste sensation may be attributed to the drug in this patient. He was referred to a psychiatrist for change of antidepressant medicine. The drug amitriptyline was discontinued. The patient was put on zincolac, which contains zinc sulfate

monohydrate 137.5 mg (equivalent to 50 mg of elemental zinc), and niacinamide 250 mg BD and was asked to report after every 20 days. After 6 months, patient showed about 70% recovery in the salt perception.

The second case is about a 45-year-old male patient who presented to the skin OPD with a history of thick and discolored nails of the big toe. The patient was prescribed terbinafine 500 mg daily as monthly pulses for 7 days for 6 months. On follow-up examination, the patient complained of loss of salt taste sensation. This was explained by the patient as the need for putting in more salt in food when compared to other family members. This was associated with decreased appetite. There was no effect on bitter, sour or sweet taste sensation. Neurological, gastrointestinal and evaluation of olfactory function did not show any abnormality. As terbinafine is known to cause taste loss, the drug was immediately stopped. The patient was advised to visit at 3 weeks and the patient expressed some improvement in salty taste sensation. After 16 weeks, there was complete recovery of salty taste sensation.

## DISCUSSION

Amitriptyline is a tricyclic antidepressant drug. The antidepressant activity of amitriptyline is due to the inhibition of serotonin and norepinephrine reuptake. Blockade of amine transporters (noradrenaline and serotonin transporters) located at neuronal membrane, permits a longer sojourn of neurotransmitter in the intrasynaptic space at the receptor site. A large number of adverse effects are associated with amitriptyline, which include dry mouth, bad taste, constipation, urinary retention, and blurred vision, disturbance of accommodation, dizziness, drowsiness, confusional state, increased appetite and weight gain, postural hypotension, and urticaria. Ageusia is a rare adverse effect of amitriptyline. Terbinafine is an allylamine antifungal drug. It acts as a non-competitive inhibitor of squalene epoxidase. It is associated with gastric upset, rashes, and taste disturbances.<sup>9</sup>

Recovery of taste sensation after stopping amitriptyline and terbinafine in the above two cases confirmed that the loss of taste sensation was due to these drugs only. Therefore, this rare but important adverse effect of amitriptyline and terbinafine should be kept in mind, while managing patients on these drugs.

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