Losartan and taste disorders

Introduction
Losartan is an angiotensin II receptor antagonist which can be used either as monotherapy (Cozaar®, Jalvase®) or in combination with hydrochlorothiazide (Hyzaar®, Fortzaar®). The SPC states that losartan is used for the treatment of primary hypertension, in type II Diabetes Mellitus to reduce the progression of nephropathy and finally for hypertension with left ventricular hypertrophy to reduce the risk of cardiovascular morbidity and mortality [1,2]. The Netherlands Pharmacovigilance Centre Lareb previously published a quarterly report in which two cases of reversible dysgeusia during use of losartan had been described [3]. Presently, a total number of seven reports on this association have been received. The association is not mentioned in the SPC yet.

Reports
Up to 15 January 2004, Lareb received 7 reports of taste disorders on Losartan. Four patients reported a taste loss, three patients taste distortion. Onset of symptoms in reported cases ranges from 1 week to 10 months, with resolution without sequella of the symptoms after withdrawal in all patients. The temporal relation with the use of losartan, the onset of the symptoms and the regression of the symptoms as soon as losartan was withdrawn are suggestive of a causal relationship.

Other sources of information

Literature
Taste disorders associated with the use of losartan have been described in several case reports [4,5]. Also the Netherlands Pharmacovigilance Centre previously published an article concerning dysgeusia in association with losartan in 1998 [6].

Databases
The database of the Uppsala Monitoring Centre of the WHO contained 102 associations of losartan and taste disorders (data-lock 1 October 2004). Taste disorders are disproportionally reported to losartan compared to other associations in the database (ROR 3.42; CI-95% 2.81-4.17). Reports concerning the combination of losartan and hydrochlorothiazide were not separately filed in the WHO database. For this reason, a reporting odds ratio could not be calculated.

Additional information related drugs
Also on other angiotensin II inhibitors taste disorders have been reported. The Netherlands Pharmacovigilance Centre also received three reports on irbesartan. Taste disorders on irbesartan are mentioned in the EPAR. Also on valsartan Lareb received three reports, but taste disorders are not mentioned in the SPC of this drug.

Mechanism
Taste disorders are also well known ADRs of ACE inhibitors. ACE-inhibitors have been successfully used both prior to and after losartan-induced dysgeusia, suggesting the two similar classes of drugs do not share a common mechanism [4]. In a randomized, double-blind, placebo-controlled, cross-over design among eight healthy volunteers Tsuruoka et al. found that candesartan subclinically reduces taste sensitivity after repeated dosing in healthy subjects. They suggest...
that this ADR may be a class effect for all angiotensin-II inhibitors, including losartan [7].

Prescription data

![Graph showing losartan prescriptions per quarter since 1995](Image)

Figure 1. Total number of losartan prescriptions per quarter since 1995 (Source: GIP College voor Zorgverzekeringen, Diemen).
Conclusion
The occurrence of taste-disorders is associated with the use of losartan. This is supported by case-reports in literature as well as reports in other databases. Reports suggest an angiotensin II receptor antagonist class effect.

References