Salmeterol, a selective β2-adrenoceptor agonist, has a bronchodilating action more prolonged than salbutamol [1], and a similar side-effects profile [2]. The estimated incidence of adverse drug reactions (ADRs) attributed to salmeterol is about 21% of the treated patients in large clinical trials [3]; whereas, the incidence of serious ADRs is approximately 1.2% [4]. Although dizziness has been described among its five most common ADRs is approximately 1.2% [4]. Although dizzi- ness has been described among its five most common ADRs is approximately 1.2% [4]. Although dizzi- ness has been described among its five most common ADRs [4], we could find no reports of vertigo attributed to salmeterol usage after a search through the usual bibliographic databases since 1985.

We describe a case of vertigo following the inhalation of salmeterol that reappeared three times on separate re-exposures.

Case report

A 70 year old woman with bronchiectasia, bronchial asthma, osteoporosis and cholelithiasis, was being treated with inhaled budesonide and sodium nedocromil, oral theophylline, and inhaled salbutamol (on demand) whilst her condition was stabilized (forced expiratory volume in one second (FEV1) and forced vital capacity (FVC) were 0.49 and 1.16 l respectively, prebronchodilator test, and 0.57 and 1.36 l respectively, postbronchodilator test.). After one of her regular visits to our centre, Serevent® (salmeterol 50 µg b.i.d.) was added, and a few minutes after the first dose she complained of vertigo (described as an intense illusion of movement of the environment, not accompanied by nausea, vomiting, hearing loss, or syncope) that lasted 36 h.

After complete recovery, she decided to resume her salmeterol treatment again. Vertigo reappeared with the same symptomatology each time. The close temporal relationship between the inhalation of salmeterol and the onset of symptoms, as well as the positive re-exposures, reinforce this alleged association.


ABSTRACT: Dizziness, together with hypotension and faintness, are well-known adverse drug reactions of salbutamol that have been related to its cardiovascular effects. However, we could find no published reference to vertigo in patients taking salmeterol, in the absence of cardiovascular alterations.

We present the case of a woman who experienced four independent episodes of vertigo lasting 36 h each, following four inhalations of salmeterol several months apart.

The close temporal relationship between the inhalation of salmeterol and the onset of symptoms, as well as the positive re-exposures, reinforce this alleged association.

Salmeterol-induced vertigo...
relationship between salmeterol inhalation and the appearance of the ADR, as well as the fact that the patient continued her treatment with the other drugs (including salbutamol) without vertigo, also reinforce this alleged association. Although electronystagmography could not be performed during the episodes of vertigo, neurological and otological explorations revealed no vestibular or auditory dysfunction [8]. A possible interaction between salmeterol and salbutamol in this patient could not be ruled out; however, she inhaled salbutamol occasionally.

Reporting of further cases of vertigo in patients treated with salmeterol will help to reinforce this association and even to define possible risk factors.

References