LETTERS

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Acute laryngeal oedema following self-medication with Chloraseptic

Sir,

It has been more than two years since Ho and Hollinrake reported a case of acute epiglottitis associated with the use of Chloraseptic® (Richardson Vicks) throat spray.[1] In May 1990 the Committee on Safety of Medicines circulated a warning to all doctors regarding the possible association of oedema of the epiglottis and larynx with the use of this preparation. A similar warning has been included in the *British national formulary* since September 1990.[2] We wish to report a further case of life-threatening upper airways obstruction in which this spray was implicated.

A 47 year old woman was referred to the accident and emergency department by her general practitioner with an acute onset of dyspnoea. On examination she was extremely distressed and unable to speak. Her respiratory rate was 32 breaths per minute with audible stridor and her pulse rate was 120 beats per minute. She was apyrexial. Acute laryngeal oedema was diagnosed and she was commenced on a nebulized solution of adrenaline with a high concentration of oxygen. Intravenous hydrocortisone (200 mg) was also administered. She improved dramatically but her continuing distress and stridor necessitated the administration of intravenous adrenaline (0.2 mg). She then became relaxed and comfortable with a normal pulse and respiratory rate. Pulse oximetry confirmed satisfactory oxygenation. A chest radiograph and a lateral soft tissue view of the neck were unremarkable.

A history was subsequently obtained of a sore throat for about one week with a productive cough and a hoarse voice. The patient had been treating herself with a Chloraseptic throat spray up to two hourly since its purchase three days previously.

Following hospital admission she was further treated with oxygen, oral co-amoxiclav and a second dose of hydrocortisone intramuscularly (200 mg). Indirect laryngoscopy confirmed the initial diagnosis: oedema was noted principally in the interarytenoid region and the epiglottis was normal. Cultures from the throat were sterile and she made an uneventful recovery.

The mechanism by which Chloraseptic throat spray may cause laryngeal oedema is unclear. The active ingredients in Chloraseptic are phenol and sodium phenolate, equivalent to 1.4% total phenol. It also contains glycerol which may reduce the activity of these substances. In the United Kingdom, the concentration of phenol added to soaps and shampoos is limited to 1% by the cosmetic products regulations (1978). It is used in Chloraseptic throat spray for its antibacterial and local anaesthetic properties, and is absorbed through unbroken skin and mucous membranes. Applied to epithelial surfaces in moderately strong concentrations, phenol causes blanching and corrosion by precipitation of tissue proteins, and a slough is formed.[2] It is possible that these effects may be enhanced in the presence of inflammation secondary to infection. Thus, it is proposed that phenol has a direct toxic action; the patient described here had no other signs of an allergic reaction.

The Committee on Safety of Medicines has, to date, received a total of 21 reports of reactions affecting the upper respiratory tract in patients using Chloraseptic spray, with three deaths (Committee on Safety of Medicine, personal communication). We understand that not all of the reactions were as serious as the one described here and for some, including two of the deaths, it is uncertain to what extent they were caused by Chloraseptic. Some patients may have had bacterial epiglottitis and experienced a non-specific reaction to the stimulus of spraying liquid on the throat. It must be emphasized that, given the widespread usage of this product, such reactions are extremely rare. Nevertheless, this is one of the most devastating emergencies with which a doctor may be faced. In this context adrenaline as a nebulized solution or injection has again proved itself to be an irreplaceable drug, of value to the general practitioner and hospital doctor alike.

Self-medication is increasingly promoted for the symptomatic treatment of common conditions. The public must be made more aware of the potential dangers associated with taking any drug and the need to seek proper medical advice when symptoms persist. This could be achieved in part by the use of warning labels, such as that now applied to Chloraseptic, which emphasize contraindications and circumstances in which to seek further advice, as well as specifying the formulation of the product.

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1. Ho SL, Hollinrake K. Acute epiglottitis and Chloraseptic [letter]. *BMJ* 1989; **298**: 1584.
2. Reynolds JEF (ed). *Martindale: the extra pharmacopoeia*. 29th edition. London: The Pharmaceutical Press, 1989.