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Re: Extensive oral mucosal hyperkeratosis caused by over-the-counter long lasting snoring relief agent

Sir,

We refer to a letter relating to the products distributed by our company.¹

To our knowledge, this is the first case in which anyone has attributed hyperkeratotic lesions to our products. We have sold over eight million of these in the last 15 years and know of no link between keratosis and our ingredients, many of which are widely used in other products that also make contact with the oral mucosa.

This patient snores, which is both an indicator and a symptom of disruption of the airway. At the least, snoring shows that oral tissue vibrates and at its most extreme, it is associated with full collapse of the airway. As the writers do not address this point in considering the possible source of hyperkeratosis it may be helpful if we do so.

When a person snores, the velocity of air and the resulting forces that act on the palatopharyngeal tissue are appreciable. Respiratory airflow causes strong rapid vibrational movements of the soft tissues, uvula, and soft palate of the upper airway, which, for a heavy snorer, can last throughout a full night's sleep and continue every night. Repeated vibration, particularly in conjunction with dehydration of the mucosa can result in serious trauma to the epithelium; snorers very commonly wake up in the morning with dry, inflamed, sore throats.

Observed pathophysiological changes in palatopharyngeal soft tissue (for example, the uvula or soft palate) of people who snore, or have obstructive sleep apnoea, or both, have been attributed to the repeated vibration. There have been reports of considerably thickened epithelial tissues and other changes in the structure of the epithelium.^{2,3}

Repeated vibration of the mucoepithelial tissue can lead to inflammation, hypertrophy, and the possibility of progressive neurogenic lesions. There is also evidence that when

snoring is associated with obstructive sleep apnoea, it can result in mucosal hyperkeratosis.⁴ Repeated vibration of the palatopharyngeal soft tissue can therefore result in a progression from inflammation, to oedema, to hypertrophy, and can lead to thickened epithelial tissue, neurogenic lesions, and hyperkeratosis in someone who snores over a long time.

As we do not have the full medical history and examination notes of the patient we cannot fully assess this case. We think that the likelihood of the keratosis occurring because of factors associated with long-term snoring has not been properly considered.

Conflict of interest

The author is an employee of Passion For Life Healthcare (UK) Limited, the manufacturer of the Snoreeze range of products.

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Response to letter Re: Extensive oral mucosal hyperkeratosis caused by over-the-counter long lasting snoring relief agent

Sir,

We are writing with regard to the letter from a representative of the manufacturer of the snoring relief agent Snoreeze,¹ which was sent in response to our recent publication “Extensive oral mucosal hyperkeratosis caused by over-the-counter long lasting snoring relief agent”.²

In most patients, the product would probably not have caused this particular side-effect, but in ours, the lesion was likely to have been caused by excessive use as we stated, this patient had used both the strips and the spray, which is not advisable. The lesion was on the right side of the hard palate and, according to her detailed medical history, she had applied Snoreeze strips on that side only, for years. We did not see any similar lesions on the uvula, which would have been the first sign of problems caused by snoring alone.

They refer to a medical paper published in China,³ but this does not give strong enough evidence for a diagnosis of hyperkeratosis caused by snoring. Had snoring been the cause, the lesions would have been bilateral, as snoring is not a one-sided occurrence. We also stated in our original letter that our patient's medical records were unremarkable regarding other possible causes of this hyperkeratosis, and she was examined by several different specialists.

Several studies have described various over-the-counter agents, which might induce unwanted side-effects, although for most people, they are safe to use.^{4–6} To the best of our knowledge, no clinical studies show a correlation or connection between snoring and unilateral hyperkeratosis of the mucosa.

Conflict of interest

We have no conflicts of interest.

Ethics statement/confirmation of patient's permission

The patient's consent was submitted with the original letter.

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Delays in cancer diagnosis in the UK

In May 2015, Cancer Research UK¹ released a bulletin that linked delays in the referral of patients for screening to lower survival rates for cancer in the UK than in comparable countries. Rates in the UK were found to be lower than those in all other partner countries except Denmark. The data were taken from the International Cancer Benchmarking Partnership (ICBP), which compares data on detection, treatment, and survival for breast, colorectal, lung, and ovarian cancers across 6 countries with similar wealth, access to health-care, and population-based cancer registration. Responses to a survey of 2795 general practitioners about how they would manage different clinical situations, and about access to specific tests, waiting times, and the availability of cancer specialists for advice, were analysed together with survival data for these countries.²

The treatment of patients with oral and oropharyngeal cancer may be delayed by referral to a centre that does not specialise in cancer of the head and neck or review by a member of a multidisciplinary team not familiar with cancers of this type, and by logistical problems.

However, when examining delays in the diagnosis of these cancers, it is important to consider the patients' perspective and its effect on overall survival rather than professional delay. Rogers et al³ reported that patients knew little about the disease and that they often interpreted symptoms as something minor that would probably get better without treatment.³

Timely management in the UK involves large teams and is based on successful interactions between the patient, the medical or dental practitioners, and hospital clinicians. For a successful outcome, patients must seek help earlier and this will happen only when awareness of the disease is improved.