

Allergy to Merocel nasal packs causing septal perforation and inferior turbinate necrosis

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Abstract

We present a case of a patient with an allergy to Merocel nasal tampons and the subsequent complications and implications of this.

Key words: Loss; Surgical Procedures, Operative; Allergy; Polyvinyl Chloride

Introduction

Merocel nasal packs and ear wicks are used commonly within otorhinolaryngology to control acute epistaxis and post-operative bleeding, and to treat ear disease. Allergy to these packs and wicks has never previously been reported and as a result they are often used without any forethought or precaution. We present a case of one patient who had such an allergy and the subsequent problems and implications of this.

Case report

A 17-year-old woman presented to our out-patient department with nasal obstruction and rhinorrhoea. She was found to have a deviated nasal septum and was listed for a septoplasty. She had no known allergies but was asthmatic. The septoplasty was performed without difficulty and the nose was packed bilaterally with Merocel nasal packs. After two hours, having returned to the ward, the patient complained of facial swelling. With no other obvious cause for the swelling the packs were removed and the swelling subsided over the next couple of hours. At that time no inspection of the nose was carried out. The patient was well the following day and was discharged home. Eighteen days later she presented to us acutely with offensive nasal discharge and worsening cacosmia. Examination of the nose showed swelling in keeping with a recent septoplasty, a purulent discharge, an area of exposed bone on the middle turbinate and a necrotic portion of the septum. The patient was taken to theatre for examination under anaesthetic. At operation a large portion of the middle turbinate was found to be necrotic as was an area of the septum, both were debrided and the nose was thoroughly lavaged. The patient went on to make an uneventful recovery. She now has a septal perforation without any distortion of the nose.

Having taken advice from an immunologist, a skin test was then carried out by soaking a Merocel nasal pack in sterile water and placing it on the patient's forearm for five minutes. A control was carried out by using the same process on a healthy volunteer. The patient quickly developed an itchy weal, in the shape of the pack, where the pack had been whereas the control did not.

Discussion

Merocel nasal packs are manufactured using only the relatively non-allergic material polyvinyl chloride (PVC). The same material is used in Pope wicks. No allergy to either product has previously been reported. However, allergy to PVC products had been noted on several occasions previously. In a study on 542 cases of contact dermatitis, Estlander *et al.* found five who had allergic eczema due to PVC.¹ A case of necrotizing dermatitis due to the use of PVC tubing in haemodialysis² and a case of contact dermatitis from PVC identification bands³ have also been reported. PVC is manufactured from the toxic substance vinyl chloride and is hazardous to the workers in PVC-producing plants and may affect respiratory function. It has been shown that some of the by-products left within the PVC can cause skin and other reactions.³⁻⁵

In summary, an allergic reaction can occur to Merocel products and clinicians using them must be aware of this important but rare complication.

References

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