LETTERS TO THE EDITOR

Ulcerative keratitis in a person wearing daily disposable contact lenses

EDITOR,—Daily disposable contact lenses were introduced in the UK in February by Vistakon. The lens, consisting of the polymer etafilcon A, is manufactured by a stabilised soft moulding method in a sterile manner within its own packaging. The sterile lens is inserted in the morning and discarded at the end of the day's wear. Premarket studies have suggested improved acuity, comfort, and patient satisfaction compared with conventional daily wear soft lenses.¹

We report a case of keratitis associated with the use of daily disposable contact lenses.

CASE REPORT

A 27-year-old woman with low myopia was referred to the accident and emergency department of Moorfields Eye Hospital. She had worn soft contact lenses for 9 years, initially using daily wear conventional soft lenses. She had successfully worn Surevue monthly disposable contact lenses for the past 2 years on a daily wear basis with a good hygiene routine. Mild meibomian gland dysfunction with lens greasing and a slight reduction in the tear film was managed with lid hygiene and Clerz lubricating drops. As there was a slight increase in lens awareness at the end of each month, she requested a 5 day trial of 1-day Acuvue contact lenses.

The patient attended routinely at the end of the trial, reporting a slight increase in lens awareness on that day. At no time had the lenses been reworn or reinserted, nor had there been any other unusual events. On examination, the corrected vision was 6/5 in both eyes and the contact lenses were not defective. There was mild right conjunctival hyperaemia and a 0.8 mm diameter anterior stromal infiltrate with a small overlying epithelial defect in the corneal mid periphery in the 10 o'clock meridian. The anterior chamber was quiet and the lesion was felt to be too small for useful cultures to be taken; cultures from the lenses revealed no growth. The patient was treated initially with hourly ofloxacin 0.3% drops and by 48 hours the epithelial defect had closed although some infiltrate persisted. The topical antibiotic was reduced in frequency over the next week and the lesion healed leaving a small corneal scar.

Figure 1 Slit-lamp photograph to show healing infiltrate in right corneal mid periphery (arrow) following a 5 day trial of daily disposable contact lenses.

COMMENT

Disposable contact lenses, first introduced in 1987 for extended wear, had several theoretical advantages including minimal lens handling, avoidance of the problems associated with aging and deposited lenses, elimination of the need for lens hygiene compliance, and no possibility of microbial contamination of lens solutions or cases.² It was hoped that this would decrease the incidence of microbial keratitis and other complications. However, cases of ulcerative keratitis were reported over the next 2 years³⁻⁵ which led to several large case-control studies. Although these studies indicated that extended wear was the main risk factor,⁵⁻⁸ some demonstrated an additional risk for disposable lenses beyond that of the mode of wear.⁹⁻¹⁰ However, others failed to confirm this.¹¹⁻¹³

The daily disposable contact lens was introduced in the hope that it will be significantly safer as well as more convenient and acceptable to wearers. However, the lessons learned from the widespread use of extended wear and earlier types of disposable lenses¹⁴⁻¹⁵ suggest that only extensive experience with daily disposable lenses over the next few years will reveal whether this hope is to be realised.

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Pigmented conjunctival epithelial dysplasia in an HIV positive African: detection of human papillomavirus type 16

EDITOR,—Pigmented conjunctival epithelial dysplasia is a disease entity that is found most frequently in non-white (African or Indian/Asian) patients. Owing to the heavy pigmentation observed on clinical examination, the lesion can easily be misdiagnosed as malignant melanoma.¹

CASE REPORT

A 31-year-old African woman who had, some months previously, been diagnosed as HIV positive but without any symptoms of AIDS presented with a conjunctival tumour. The lesion had been present for 7 years and was located at the temporal limbus of her left eye. It was markedly pigmented. The clinical diagnosis was invasive malignant melanoma, and she therefore underwent surgery. Apart from the tumour, both eyes appeared normal.

The excised tissue was embedded in paraffin, and by routine light microscopy (sections stained with haematoxylin-eosin and periodic acid Schiff) the tumour was diagnosed as invasive malignant melanoma by a general pathologist. Because some suspicious pigmentation remained after the local excision, the patient was sent to a university hospital for a second opinion and further treatment. When at that time the original sections were reviewed, the histological picture disclosed a well demarcated epithelial proliferation with massive hyperkeratosis (Fig 1). Goblet cells were no longer present, and there was squamous metaplasia with features of dysplasia such as dyskeratosis, parakeratosis, nuclear pleomorphism, and irregular maturation. Other prominent features were vacuolated koilocytotic cells and, as could be expected from the clinical aspect, a fairly large amount of pigment. The pigment was identified as melanin by the Masson-Fontana stain. Melanin containing cells were dispersed throughout the epithelium even within the keratin layers; some of these cells were dendritic while others appeared plump and rounded. The latter probably represented macrophages invading the tumour. At the edge of the tumour there were similar features characteristic of epithelial dysplasia with a sharp border between normal and diseased epithelium. In addition, there was a striking elastotic degeneration of the subepithelial stroma in this area.

The basal lamina was intact throughout the lesion; there was no tumour infiltration of the stroma but only a chronic inflammatory cell infiltrate including melanomacrophages.

Bearing in mind the epithelial character of the tumour and some of the cellular features such as the koilocytotic atypia, we were interested to see whether a viral origin might play a