

## LETTERS TO THE EDITOR

### Glauline (metipranolol) induced uveitis and increase in intraocular pressure

SIR,—I refer to the articles<sup>1,2</sup> in which the observation of uveitis in patients being treated for glaucoma with metipranolol was noted. I wish to report similar findings of uveitis in eight patients being treated with metipranolol, seen at clinics in Wolverhampton and Walsall since March 1990. Of these, five were treated with 0.6% metipranolol, and the remaining three were treated with 0.3%.

The patients being treated with 0.6% metipranolol developed uveitis, with mutton fat keratic precipitates (KPs) and a noticeable pressure rise over the previous visit, when no uveitis was observed. Patients treated with 0.3% developed a less severe uveitis, with mutton fat KPs. A pressure rise was seen in five

of the six eyes affected. In all cases the uveitis observed was similar to that of patients with sarcoid uveitis. When the metipranolol treatment was stopped, the pressure dropped and the uveitis cleared in all patients. This was the case even if glaucoma treatment was continued with an alternative  $\beta$  blocker.

A summary of the patients treated and their intraocular pressures is given in Table 1.

Metipranolol was prescribed to approximately 50% of the patients in Wolverhampton and Walsall who required  $\beta$  blocker treatment prior to the notification by Smith and Nephew of the withdrawal of the 0.6% metipranolol. However, no figures are available as to the total number of patients receiving this treatment.

The findings above have been discussed in correspondence with Akingbehin, who confirms that he has made similar observations.<sup>2</sup> Topical metipranolol has now been withdrawn by the manufacturer.

DAVID KINSHUCK  
Wolverhampton and Midland Counties Eye Infirmary

- 1 Akingbehin T, Sunder Raj P. Ophthalmic topical  $\beta$  blockers: review of ocular and systemic adverse effects. *J Toxicol* 1990; 9: 131-47.
- 2 Akingbehin T, Villada JR. Metipranolol-associated granulomatous anterior uveitis. *Br J Ophthalmol* 1991; 75: 519-23.

Table 1 Summary of patients treated

Patient	% Metipranolol at which uveitis detected	IOP (mmHg) at visit before uveitis detected (R and L eye)	IOP at visit uveitis detected	IOP 3 months after metipranolol stopped
1	0.3	28, 28	28, 32	22, 22
2	0.3	18, 21	20, 24	16, 16
3	0.3	14, 12	22, 22	17, 17
4	0.6	18, 18	22, 22	18, 16
5	0.6	18, 18	38, 38	18, 20
6	0.6	26, 26	24, 28	22, 24*
7	0.6	14, 12	26, 26	18, 18
8	0.6	21, 21	34, 16	20, 20

\*Patient 6 developed nummular corneal stromal opacities similar to those produced by adenovirus, causing a red irritable eye, at the same time as the uveitis. These disappeared when the drug was stopped.

### Broken egg shells of acarine origin on the eyelid margin

SIR,—In the past we have noted the presence of eggs of demodectic mites in debris routinely collected from the eyelid margin in infested patients. In this technique the detritus was gently removed with epilation forceps and placed in a droplet of sterile normal saline on a glass slide and then subjected to light microscopy. The most common egg observed was the shield shaped type characteristic of *Demodex folliculorum* (Fig 1). Only on a rare occasion was the oval contoured egg of *Demodex brevis* seen (Fig 2).

Eggs can also occur on epilated eyelashes along with immature and mature parasites, allowing detailed study of the life cycle. Few observers, however, have witnessed the actual hatching of the egg of this particular acarid. Some years ago Coston noted this phenomenon and left a photographic record of the eggshell splitting to release the larva.<sup>1</sup>

While studying full-thickness specimens of eyelids with scanning electron microscopy we observed broken mite egg shells on the intermarginal strip. The samples were obtained from middle aged patients who had horizontal shortening procedures performed on the lower eyelid. Immediately after resection the specimen was placed in 4% glutaraldehyde solution. It was dehydrated in ethanol and then placed in 100% amyl acetate and critically point dried. The lid specimen was placed on an aluminium

stub, gold coated in a Polaron sputter coated with 20 nm of gold, and examined with the scanning electron microscope.

Eggshell remnants were noted on the lid margin as individual broken shield shaped objects. A small number of oval samples were also seen. The majority of specimens were



Figure 2 Oval egg of *Demodex brevis* lying beside the parasite. ( $\times 500$ .)

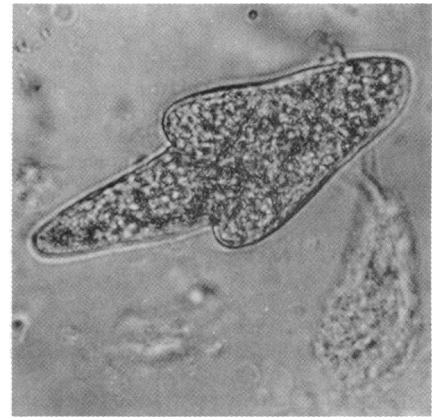


Figure 1 Shield shaped egg of *Demodex folliculorum*. ( $\times 500$ .)

located round the mouth of infested eyelash follicles, displaying protruding tails of demodectic mites. In some areas the cracked eggshells had undergone crenellation.

Early in this century Gmeiner<sup>2</sup> measured the live egg and found the length and breadth were respectively 0.08 mm and 0.04 mm. However, in a series of viable eggs we studied the length varied from 0.09 to 0.06 mm. Some shrinkage is also expected in preparing tissues for electron microscopy. It was interesting to note in some specimens the cracked egg shells also possessed two small pyramidal excrescences on their surface consistent with prelarval bosses<sup>3</sup> which are diagnostic of some types of mite eggs.

It is not known if these small particles composed of chitin contribute to those highly reflective foreign bodies sometimes observed on the surface of contact lenses.

FRANK P ENGLISH  
GUANG WEN ZHANG  
DON P McMANUS  
Queensland Institute of Medical Research,  
Brisbane, Australia

FELICITY A HORNE  
Queensland University of Technology,  
Brisbane, Australia

- 1 Coston TO. *Demodex folliculorum* blepharitis. *Trans Am Ophthalmol Soc* 1967; 65: 363-4.
- 2 Gmeiner F. *Demodex folliculorum* des Menschen und der Tiere. *Arch Dermatol Syph (Berl)* 1908; 92: 25.
- 3 Nutting WB. *Mammalian diseases and arachnids*. Boca Raton: CRC Press, 1984: 175.