

LETTERS TO THE EDITOR

Spontaneous congenital epithelial iris cysts

EDITOR,—We read with interest the article on spontaneous congenital epithelial iris cysts by Paridaens *et al.*¹ The authors report on 11 patients with congenital epithelial iris cysts which have been treated by surgical excision, sector iridectomy, or marsupialisation of the cyst. A cyst recurrent after surgery was noted clinically in three of these patients and an enucleation had to be performed in two children. The authors recommend a complete removal of the cyst wall using an iridocyclectomy if the ciliary body is involved.

This recommendation is in need of some clarifying statement. Spontaneous and acquired epithelial iris cysts nearly always (90–6%) cover the posterior corneal surface, the trabecular meshwork, the chamber angle, and the face of the ciliary body as we demonstrated recently in a series of 32 consecutive patients with spontaneous and acquired epithelial iris cysts.^{2–5} The very delicate cyst wall which often consists of not more than two or three layers of stratified squamous epithelium does not allow any direct manipulation. If a cyst is incompletely removed, as in patient No 10 of that article, there is a high risk of recurrences and conversion of a cyst into diffuse epithelialisation of the anterior chamber with resulting intractable secondary glaucoma and consecutive loss of the eye. This was presumably the cause of enucleation in the two described patients with buphthalmic eyes. A complete excision of epithelial cysts can therefore only be achieved by simultaneous en bloc removal (block excision) of the cyst with adjacent iris, pars plicata of the ciliary body and, in contrast to an iridocyclectomy, cornea, and sclera in full thickness. Using this technique, guiding structures for proliferating epithelial cells (cornea, sclera, trabecular meshwork, iris, and ciliary body) and an invisible epithelial cone within corneoscleral scar tissue as well as eradicated, and a recurrence of the cyst renders impossible. In our small series of 32 patients who have been treated between 1980 and 1991 with block excision we have not yet seen any cyst recurrence nor was an enucleation necessary. The obtained tissue can immediately be examined histopathologically and a complete resection can be confirmed. A perforating limbal scar could be detected in 20% of our patients without previous history of trauma. This fact may imply that occult ocular trauma prenatal, at birth, or in early infancy could be the cause of some of the 'spontaneous' epithelial iris cysts, so that there might be some other causes for the presence of surface ectodermal epithelium in the iris stroma than developmental displacement.

In comparison to the relatively high rate of recurrences (3/11) and enucleations (2/11) in the present series, block excision seems to be at present the treatment of choice for spontaneous and acquired epithelial iris cysts with chamber angle involvement owing to the lack of recurrence and enucleations and the relatively good long term visual results.

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- 1 Paridaens ADA, Deuble K, McCartney ACE. Spontaneous congenital non-pigmented epithelial cysts of the iris stroma. *Br J Ophthalmol* 1992; 76: 39–42.
- 2 Naumann GOH, Rummelt V. Congenital nonpigmented epithelial iris cyst removed by block excision. *Graefes Arch Clin Exp Ophthalmol* 1990; 228: 392–7.
- 3 Naumann GOH, Rummelt V. Block excision of cystic and diffuse epithelial ingrowth of the anterior chamber. Report on 32 consecutive patients. *Arch Ophthalmol* 1992; 110: 223–7.
- 4 Naumann GOH, Green WR. Spontaneous nonpigmented iris cysts. *Arch Ophthalmol* 1967; 78: 496–500.
- 5 Naumann GOH, Völcker HE. Blockexzision intraokularer Prozesse. II. Epithelwachstum in das vordere Augensegment. *Klin Monatsbl Augenheilkd* 1975; 166: 448–57.

Reply

EDITOR,—We entirely agree with the comments of Naumann *et al* that iris stromal epithelial cysts should be completely removed, and that this may require an en bloc resection as the cyst wall is delicate and liable to rupture, and also to guarantee complete removal.

The retrospective series that we reported extends over 40 years, the first case being catalogued in 1952, and over several referring hospitals. Surgical mores have altered considerably over in this long period and greater understanding of the persistent nature of the epithelium and its residual inherent capacity to slide along tissue planes has led to the current practice of complete resection in this centre as well as in Erlangen. Their high incidence (20%) of pre-existent limbal scarring is not something we are able to comment on in our series, which includes second opinion referred pathological specimens.

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'Dead man's finger' keratoconjunctivitis

EDITOR,—We wish to report a form of keratoconjunctivitis produced by ocular contact with the secretions of a soft coral, of the phylum *Cnidaria*, called *Alcyonium digitatum* and commonly known as dead man's finger. The coral is widespread in the inshore waters around the British coast and is named from its supposed similarity to a swollen hand drained of blood.^{1,2,3} It is well known to fishermen, especially those involved in ground trawling who frequently draw them up in trawl nets.

As the nets are pulled on board the coral is compressed and secretions from it are propelled into the air. This frequently makes contact with the fisherman's eyes, and some we have questioned estimate this to occur three to four times a week at certain times of the year. Normally only a small volume enters and after some initial stinging, followed by mild discomfort and redness overnight, the symptoms resolve. However, when larger quantities enter the eye then there is a more intense reaction, bringing the fishermen to local eye casualty departments. We have seen a number over the last year with a consistently similar clinical appearance. There is moderate conjunctival chemosis with a mainly inferior follicular tarsal reaction with punctate bulbar and tarsal conjunctival haemorrhages. There is also a punctate intraepithelial keratopathy, again predominantly affecting the inferior cornea.

We have treated such patients with initial irrigation to remove any remaining noxious products and then with local steroids and

antibiotics in an attempt to lessen the intense inflammatory response and to prevent super-added bacterial infection. All patients have made a complete recovery over a variable period of time of between 2 to 14 days depending on the intensity of the initial reaction.

Alcyonium digitatum, as common to all *Cnidaria* including jellyfish, possesses specialised cells called cnidocytes which serve in both a defensive and a predatory role. They contain various organelles including nematocysts, which, when released from the cnidocytes, forcibly evert causing the formation of a thread-like structure with side 'barbs'. These can not only adhere to and penetrate cells walls, but can also serve to release various toxins.^{1,2,3} These structures no doubt explain the typical intense focal reaction of the bulbar conjunctiva and cornea which we have described. Fishermen have noted that the secretions have a more noxious effect in the beginning of the year around March, which can possibly be explained by the build up of nematocysts during winter when food is scarce.

Secretions from various other organisms have been reported previously, causing local ocular reactions.^{1,5,6} We report this as a common problem which is likely to present to any casualty department near a sea port.

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- 1 Alexander RM. *The invertebrates*. London: Cambridge University Press, 1979: 144–8.
- 2 Russell-Hunter WD. *A life of invertebrates*. London: Collier Macmillan, 1979: 73–4.
- 3 Barnes RD. *Invertebrate zoology*. London: Saunders, 1986: 94–7.
- 4 Wong SK, Matoba A. Jellyfish sting of the cornea. *Am J Ophthalmol* 1985; 100: 739–40.
- 5 Mitchel JA. Eye injuries due to jellyfish (*Cyanea annaskala*). *Med J Aust* 1962; 2: 303–5.
- 6 Kozakiewicz A, Tarzynska J. Acute inflammation of the eye due to fluid from *Ascaris lumbricoides*. *Am J Ophthalmol* 1963; 56: 324 (abstract).

NOTICES

Office of Continuing Education

A conference for the otolaryngologist, neurosurgeon, and radiologist, entitled 'Interactive surgery and imaging of paranasal sinuses, skull base, brain, and spine,' will be held on 14–17 March 1993 at the Silvertree Hotel, Snowmass Village, Colorado. Further details: Program Coordinator, Johns Hopkins Medical Institutions, Office of Continuing Education, Turner Building, 720 Rutland Avenue, Baltimore, MD 21205, USA. (Tel: (410) 955–2959.)

European Study Group on Diabetic Eye Complications

The next meeting of EASDEC held jointly with the Epidemiology Study Group, will be in Cambridge, England, on 4–6 April 1993. The main topic is Epidemiology of Diabetic Retinopathy. Further details: Dr B Cathelineau, Unite d'Ophtalmo Diabetologie, Hopital Saint Louise, 1 rue de Claude Vellefaux, 75475 Paris Cedex, France (Fax: (331) 42 49 41 78); or Professor F M Kohner, Diabetic Retinopathy, Royal Postgraduate Medical School, Du Cane Road, London W12 0NN, UK. (Fax: +44 81 740 3265.)