Fig. 3 (Shields and associates). Photomicrograph showing cross section of synthetic fiber. Note the black dots within each. (hematoxylin and eosin, $\times 100$).

irregular mass containing many closely packed, hair-like filaments with a marked foreign-body giant cell reaction (Fig. 2). The surrounding tissue contained a marked chronic inflammatory infiltration with numerous lymphocytes, plasma cells, and epithelioid cells. Closer inspection of the hair-like structures showed them to be fairly round and solid without a central core (Fig. 3). Many of them contained scattered small, black particles. The structures were markedly birefringent. Some of the structures were surrounded by a rim of homogenous eosinophilic material.

Our first histopathologic interpretation was a foreign-body granulomatous reaction to natural hair. We subsequently learned that a paper describing similar lesions in children had been submitted for publication.¹ In that study, the authors had conclusively demonstrated the hair-like structures to be synthetic fibers.¹ They pointed out that the synthetic fibers were possibly inoculated into the conjunctival fornix from a blanket or toy. In one instance, a stuffed toy dog was implicated as the source of the foreign material. Because many children have frequent contact with blankets, toys, and objects containing synthetic fibers, this explanation seems quite plausible.

From a histologic standpoint, the synthetic fiber granuloma should be differentiated from a granuloma caused by caterpillar hairs (ophthalmia nodosum) or natural human hairs.¹ Unlike caterpillar hairs or natural human hairs, synthetic fabric fibers lack a central core. They may also contain scattered black granules, which may represent particles of titanium, barium, or zinc. These are apparently added by the manufacturer to diminish the plastic character of the final fabric. The rim of eosinophilic material seen

around some of the fibers has been likened to an antigen antibody reaction known as the Splendore-Hoeppli phenomenon.¹ The histopathologic features in our case were compatible with a granulomatous inflammatory reaction to such synthetic fabric fibers.

We believe that conjunctival synthetic fiber granulomas may be more common than previously realized. The diagnosis should be considered in any patient with a peculiar hair-like mass in the conjunctival fornix. The best management is complete surgical excision, and the prognosis is excellent.

Reference

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Disinfectant Container for Diagnostic Lenses

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In ophthalmic practice the use of applanation tonometers and of diagnostic contact lenses is increasingly customary. This creates a potential hazard of

Figure (Vijf-vinkel and de Jong). The disinfectant container.

iatrogenic bacterial and viral contaminations. The most likely infections to be transmitted inadvertently are viral ones such as epidemic keratoconjunctivitis. Most of these contaminations can be prevented by cleaning the applanation prisms or the contact lenses followed by immersion in a disinfectant solution for at least ten minutes. As a rule this solution contains quaternary ammonium bases, aldehydes, and alcohol. For most applanation prisms it does not matter if they stay submerged for longer periods. The diagnostic (three-mirror) contact lenses, however, can be damaged by being submerged for too long because of swelling of the kit substances. The disinfectant solution thus enters the lens, resulting in fogging of the mirrors and the inner lens surfaces.

To overcome this problem we devised a simple container that keeps objects submerged for no longer than 12 minutes. It is composed of a Perspex cylinder with a partition in the middle; this partition is positioned at an angle of 45 degrees with the longitudinal axis of the cylinder (Figure). The cylinder has a screw cap on both ends. The partition contains two tiny holes with diameters of 0.9 mm. If the upper compartment is filled as far as the rim of the screw cap, the immersion fluid takes 12 minutes to run from one compartment into the other. The lens is then rinsed with water and dried. After being used, the lens or applanation prism is cleaned, the top cap of the cylinder is screwed tight, the cylinder is

turned over, the top cap is opened, and the lens is immersed again in the disinfectant solution.

Theoretically, humidity is high within the cylinder and some disinfecting solution remains on the surface of the object to be disinfected. We have used these cylinders for more than two years without observing any fogging, even when the lens was in the upper part of the cylinder for several days.

Treatment of *Nocardia* Keratitis With Topical Trimethoprim-Sulfamethoxazole

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Nocardia asteroides is a rare cause of keratitis usually associated with rural trauma.¹ The recommended treatment of 30% sulfacetamide eyedrops has yielded variable results.¹⁻³ We treated a case of *Nocardia asteroides* keratitis unresponsive to topical 30% sulfacetamide eyedrops. A rapid therapeutic response was obtained with topical trimethoprim (16 mg/ml) and sulfamethoxazole (80 mg/ml).

A 31-year-old man suffered a deep partial thickness corneal laceration of the right eye during an agricultural accident. Three weeks later an intrastromal corneal infiltrate was noted and the patient was treated with broad-spectrum topical antibiotics. The infiltrate increased and he was transferred to Wills Eye Hospital.

On admission on Sept. 21, 1984, he had marked photophobia in the right eye. His visual acuity was R.E.: counting fingers at 6 feet and L.E.: 20/25. The right eye had a large, shelved, partial-thickness 6-mm corneal laceration extending from the superior mid-periphery through the visual axis and continuing inferiorly and nasally to the corneoscleral limbus. The corneal epithelium was intact, but within the stromal laceration there was a dense 2 × 2.5-mm white opaque stromal abscess with a surrounding 4 × 3-mm feathery irregular translucent border. There was moderate ciliary injection and a severe fibrinoid anterior chamber reaction. Treatment was