Eye shield with removable lid

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The prime cause of corneal damage in exposure keratitis is desiccation. This results from failure of the lids to cover the cornea for either mechanical or neurological reasons. In such cases the application of a closely-fitting shield affords considerable protection because a pocket of humid air is trapped in front of the cornea.

Several simple occlusive shields have been described utilizing such varied materials as a watch crystal (Buller, 1874), x ray film (Sellinger, 1947), thin plastic (Golden, 1963), and silicone rubber (Deitz and Meldrum, 1965).

During the short-term treatment of acute exposure keratitis two conflicting requirements may arise. The eye must be hermetically covered yet readily accessible for observation and the instillation of drops. The two criteria are met by a simple cover made from a Cartella shield and a small plastic pillbox.

A circular hole equal in diameter to that of the pillbox is cut in the centre of the shield. The base of the pillbox is sawn off and the upper part bearing the lid is fastened into the Cartella shield with adhesive tape. The modified shield is then fastened over the eye with micropore tape. The cornea is now protected from desiccation yet readily accessible by simply removing the pillbox lid. In addition, slit-lamp examination of the cornea and anterior segment is possible when the lid is removed. The eye may thus be repeatedly and fully exposed for examination without the necessity for stripping off the adhesive tape fastening the shield to the face (Figs 1 and 2).

FIG. 1 Shield in situ with lid removed

FIG. 2 Patient wearing shield complete with lid

In the case illustrated the patient was a young man who developed acute dysthyroid exophthalmos and it became necessary to protect the eye during the interval before orbital decompression.

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