

EPITHELIAL BASEMENT MEMBRANE DYSTROPHY

(also known as Cogan's map, dot or fingerprint dystrophy)

It is like a fine graze on the cornea, sometimes reaches the surface. This is the window to the eye and is very sensitive, hence some pain or discomfort can occur.

The pain can be absolutely excruciating, out of all proportion to the tiny changes on the cornea that is causing it.

They are only visible on the microscope to us and appear like small cysts or whirls in the cornea (clear window to the eye).

Commonest dystrophy, bilateral
Autosomal dominant or non-hereditary
Asymptomatic, blurred visual acuity or recurrent erosions
(some authorities claim this affects up to 10% of the population,

and that 50% of recurrent erosions have this dystrophy)

Maps, dots and fingerprints appear as grey areas in epithelium

TREATMENT

As for recurrent erosion.

Which is avoid rubbing, irritating surrounds
Lubrication with Optive, Artleac Reblance or Celluvisc (Carmellose 1% Preservative Free), Viscotears and the like. Regular lubrication is key.

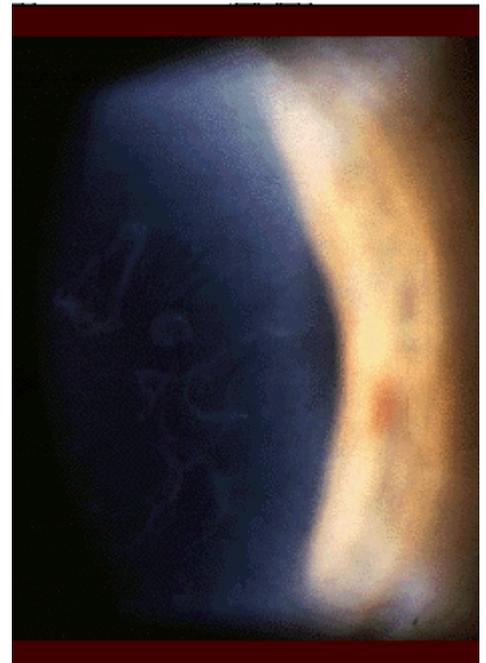
At night use an Ointment such as Artleac Night time gel or Lacrilube to prevent the lid sticking and causing an abrasion.

Risk of abrasions resulting in painful eye if this happens then lubrication and attending eye emergency if this persists.

The next step to treatment is Bandage Contact lens which can give instant relief. These are worn on an extended basis ie slept in over night and changed every month or so. While risk of infection exists with these lenses thus careful monitoring and reporting any red eye is important.

After this micropuncture and various other more invasive treatments can be helpful, but in my experience are rarely needed.

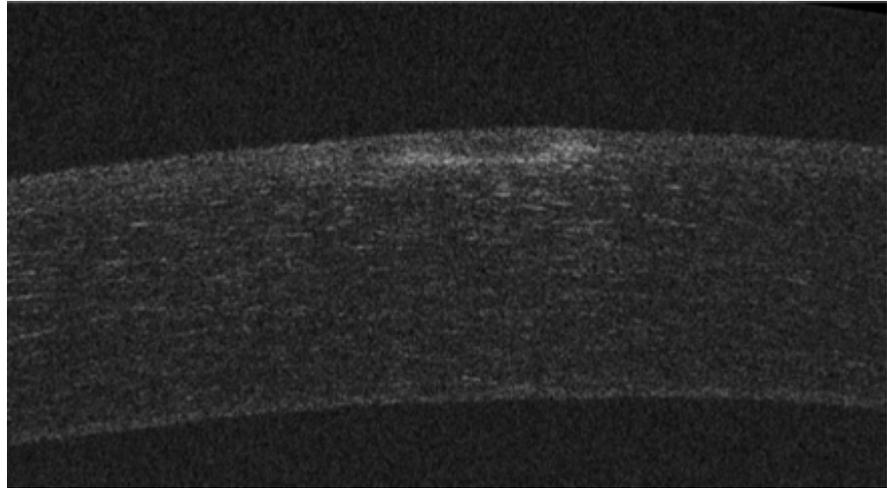
Phototherapeutic Keratectomy has been tried as a cure, and a recent study 2011 found a good effect but recurrences occurred in 13% symptomatically and morphological recurrence in 40%. The vision was not affected by the laser treatment. Thus it is an option to consider.



Diamond Bur superficial keratectomy has been shown also to reduce the recurrences in Cornea journal 2009.

The condition can take a year or so to settle down, but eventually it will.

This Optical Coherence tomography of the cornea showing some of the changes in the Bowmans layer



Oral tetracycline in the treatment of recurrent corneal erosions.

A paper comparing the effectiveness of Oral Tetracyclines was published from the Birmingham and Midland Eye Hospital, UK. This essentially showed that Oral Tetracyclines and eye lid toilet aided healing and reduced recurrences. Thus especially if there is lid margin disease may well be a treatment option.