No more reading glasses for her

People who have presbyopia or 'louadh', such as Madam Engku Faridah Eza, can now opt for a special lens to be implanted in the cornea to correct their vision. Joan Chew reports

Unless a Laski flap, which is 200 microns thick and causes the cornea to weaken by 50 to 60 per cent, is transplanted in the eye, the eye's ability to focus on near objects is lost over the course of time.

And among a view of options, a minimally invasive procedure may spell the newest hope for old eyes. In this procedure, a bifocal lens is implanted into the cornea of the patient's non-dominant eye. The dominant eye is the eye that looks directly at a television or computer object. The other eye is the non-dominant eye. Those who have undergone Laski to correct their vision to such low levels also qualify, he said.

People who are not suitable for the operation are those whose eyes have more severe refractive errors, for existing eye diseases such as cataract, diabetic retinopathy, age-related macular degeneration.

RISKS OF SYNTHETIC IMPLANTS

The Singapore National Eye Centre (SNEC) and Tan Tock Seng Hospital (TTSH) do not offer implants for near vision because they are awaiting large-scale studies to prove efficacy.

Dr Cordelia Chan, head of the refractive surgery unit and senior consultant at the cornea and external eye disease service at SNEC, said the concern with using synthetic implants, such as lenses, is the role of corneal scarring, which can potentially affect vision.

She added that studies on Keraflow, a corneal flap of black polymer which uses the peripheral effect to increase depth of focus, have shown that this is uncommon. But though the data may be promising, the SNEC is focusing on developing biological implants.

Scientists from the SNEC and the Singapore Eye Research Institute are studying the feasibility of using precorneal collagen for implantation into the cornea to correct presbyopia.

Studies in animal models were promising, Dr Chan said. Experts are expected to start later this year. Dr Chan added.

Dr Farlan Boor, head of cornea, implant and refractive surgery at the National Healthcare Group, said that while the Keraflow implant has helped some patients who may not have been candidates for implants in the past, it can be used in combination with an excimer laser.

"We have been able to correct presbyopia in patients who would not otherwise have been candidates," Dr Boor said.

The procedure is used to correct near vision so the patient can adapt to the new lens, he said.

"The idea is to use an excimer laser to reshape the central part of the cornea to see near objects and the surrounding parts of the cornea for intermediate or distant vision. This enables vision at multiple distances."

It carries similar risks and side effects as conventional excimer laser eye surgery.

"The patient needs to be assured of the option of re-doing the surgery if the results are not satisfactory," Dr Boor said.

The Keraflow implant is expected to be available in Singapore in the near future.

Dr Farlan Boor said: "In the next two years, I see a significant increase in the availability of the Keraflow implant in Singapore and other parts of Asia."