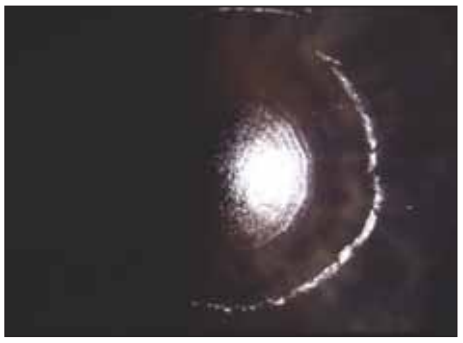
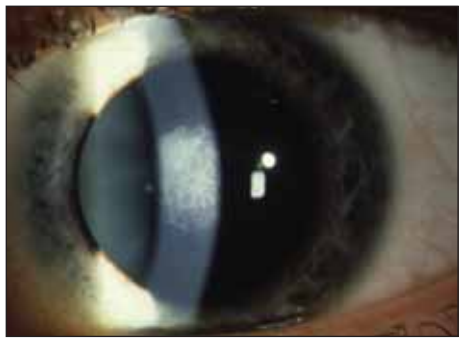
David Gartry

Safe practice in laser refractive surgery should be the best practice

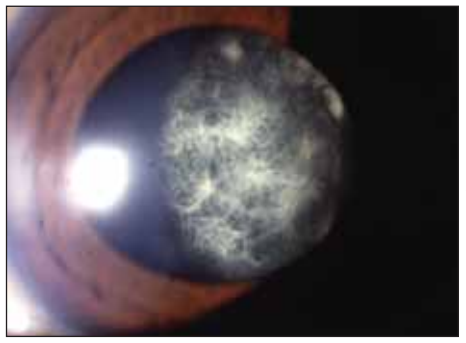
First PRK in the UK that Prof Gartry carried out in November (1989)



This is a silhouette of the same PRK



PRK haze one year after a -6.00D treatment at St Thomas' (1991)



Corneal Haze one year after a -7D PRK at Moorfields (1994)

Courtesy of Prof David Gartry

Colin Kerr
in Dublin

THE safety of patients who volunteer for laser refractive procedures must be the priority for surgeons, even though new procedures and technologies have led to dramatic improvements in outcomes.

This is the view of Prof David Gartry, consultant ophthalmic surgeon at Moorfields Eye Hospital, and visiting professor to The Department of Vision Sciences, City University, London, who delivered the Dermot Pierse Memorial Lecture at the Fourth International Refractive Meeting, which looked at the past, present and future of laser refractive surgery. He was asked to give the memorial lecture because he was the first surgeon in the UK to perform laser PRK (Nov 1989) and hence was able to give an overview of the technology from that time until now.

"We should always be watchful of safety. These treatments are elective. They are by some definitions and by some observations cosmetic and will always be criticised for the fact that patients do not need to have refractive surgery in the vast majority of cases," Prof Gartry said.

(l-r) Steve Trokel, Theo Seiler and John Marshall, pioneers of PRK in the mid-80s

"That is very important. There is not enough long-term follow-up from the surgeons who are actually carrying out the work. Very often, the surgeons are no longer working at that clinic or they work at the clinic once a month and they don't get the chance to do postoperative checks. That is a shame, because there is no substitute, when faced with a patient who is unhappy, for being able to find out why and then to work out how you can help them."

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The challenge surgeons faced, he said, was to optimise visual outcomes and minimise complications in laser refractive surgery. Safety should be at the top of their list, he said, followed by predictability.

Training and patient selection were also important, he said, and refractive surgeons needed to be able to handle problems where they occurred, or if they could not handle them to know where to refer the patient.

Counselling

Prof Gartry said it was also important, when counselling patients, that surgeons should have some idea from their own database of the accuracy of the treatments they were offering them.

"You need to know the accuracy of your outcomes so that you can counsel patients effectively. A patient with compound hyperopic astigmatism is more difficult to treat than a patient with a simple myopia. We have to be able to explain to patients face to face what their likely outcomes are going to be."

Surgeons can only do this, said Prof Gartry, if they are experienced in the field and if they are wholly responsible for the patient's care i.e., they have followed up their own patients.

Surgery preparation, he said, is also very important and a comfortable, sterile environment is reassuring for the patient. Meticulous attention should be paid to surgical techniques, he stressed.

In terms of optimising refractive outcomes, he said, they were very fortunate with LASIK because it was much easier to do retreatments for residual myopia or residual hypermetropia.

"I retreat around five per cent of my patients. The longest period after the initial treatment that I encountered was six years where it was feasible to lift the flap. On another occasions I tried to lift the flap of a young lady in her mid-20s who was only two years 'down the line' and I couldn't lift the flap."

It is not a good idea, he said, to retreat with a combination of a surface treatment following a LASIK or vice versa.

Some patients may be excluded from laser refractive surgery on health grounds, including pre-existing dry eye, he said, but it was also important to use clinical judgement to decide if the dry eye is sufficiently bad to cancel the operation.

There were also patients with unrealistic expectations, he said, and these often needed extra counselling. These included patients with specific occupations and visual requirements, such as architects and pilots. Some patients will have long lists of questions, he said, which can be very time-consuming.

In a number of cases, he said, he had decided not to proceed with treatments because patient expectations had been too high.

"What some patients want is perfect vision and nothing else would do," said Prof Gartry.

Some patients, he said, did not believe in any of the statistics presented to them, others did not listen to the advice they received and many did not read the pre-operative information documents.

"I should also emphasise that realistic expectations should apply just as much to the surgeons as it does to the patients," said Prof Gartry.

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Dermot Pierse (1922-1994) was a graduate of University College, Dublin. A brilliant teacher, surgeon and innovator, he practised ophthalmology at The Croydon Eye Unit in London and was a president of the Royal College of Ophthalmic Surgeons (UK). He is the pioneer of eye microsurgery and the inventor of microsurgical instruments. In 1971 he founded MICRA Instruments (UK) with Jack Hoskins. With the introduction of the operating microscope, MICRA pioneered the use of titanium to produce high-quality, precision hand-held instruments.