



Introducing Health Sciences: Visual Impairment

UK Cataract Surgery

Commentary

Some surgical techniques to correct visual impairments are commonplace in wealthier countries like the UK but aren't available in poorer communities like those in rural India and South Africa. An example is laser eye surgery to treat diabetic retinopathy.

Man

It's an awful disease, diabetes, it affects three percent of the population, something like that, and the majority of patients with diabetes at some stage in their lives will get some form of eye disease. That can range from very trivial eye disease which really doesn't affect their vision at all, to severe potentially blinding eye disease. The trick is to be able to spot the early diabetic eye disease before it becomes serious because you can treat it at an early stage, and prevent it becoming serious, and that really is what we were after is to try finding a way of spotting early diabetics.

What we do is we screen them and diabetics can be screened by opticians in the high street, by their GPs, by diabetic physicians in clinics, or they can be screened by mobile vans which travel around taking photographs of their eyes. Photographing the back of the eye, you're photographing the retina, which is the film in the camera lining the inside wall of the eye at the back, and it's a transparent structure the eye so you get a clear picture of the retina with a special camera, and what you're looking for is early abnormalities in blood vessels, which include dilatation of the blood vessels, or little areas of haemorrhage, or little areas of leakage of fluid from the retina. And by spotting those at an early stage you can predict which patients are going to go on to get the more serious new blood vessel growth, haemorrhaging and potential blindness, and you can treat them. This patient had a lot of haemorrhage as a result of these blood vessels which meant she couldn't see very well, so the surgery involved removing the jelly from the eye and removing the blood from the eye, and then sealing the blood vessels, and that really was the sum total of the surgery. Hopefully she should see a lot better afterwards.