Clinical

Optomap case study

In the penultimate in our series of case studies highlighting the use of the Optos system in everyday practice, Tony Samuels describes how he monitored a diabetic patient only to find evidence of a significant retinal detachment.

A 52-year-old woman visited my practice for the first time in December 2005. She had recently been diagnosed with diabetes which was stable by diet control—her medication was ramipril and amlodipine. Her last sight test was in April 2005. She was complaining of stabbing pains in both eyes which caused her vision to blur. This varied daily. She was unsure if her right eye was amblyopic and she recalled possibly having drops in her eyes as a child but she had never been to an ophthalmologist or orthoptist.

Spectacle Rx was:
R +1.75/+2.00x90 6/18
(ret RE gave greater ‘+’)  
L -0.50DS 6/5
Add +150  R N8  L N5

No strabismus was found with cover test so I assume right eye was amblyopic.

At pre-screening Humphrey central 40 was carried out: her right eye was full; two superior nasal spots were missed in her left eye. This was repeated twice and the two same spots were missed both times.

Retina
Optomap retinal images were taken and a large infero temporal area with pigmented border was visible (Figure 1). Ophthalmoscopy was carried out which showed that the area concerned was raised. Asteroid hyalitis superior left eye was also evident on the Optomap image.

The patient was referred as an emergency to the local eye hospital but unfortunately there was no retinal specialist on duty. She was therefore transferred to the nearest hospital with an on-duty retinal specialist. A retinal detachment was confirmed and she was advised it was ‘longstanding’ which would otherwise have been difficult to detect using a standard fundus camera.

She was still under the hospital care with her next check due in September 2006. Her diabetes was stable but she was now taking metformin. We imaged her again with the Optomap and the flatter appearance of the retina can be seen on the Optomap image (Figure 2).

She visited the practice again in October 2007 when a degenerative area was noted. This can be viewed on Figure 3 (using the zoomed greyscale image in Figure 3a) from July 2008 where haemorrhages are now present about one disc diameter one o’clock to the left disc. There is also a small haemorrhage in the extreme periphery evident in the right eye (Figure 4 and in greyscale Figure 4a). These are often seen with the Optomap and I am sure they could easily be missed if an Optomap image were not taken.

I last saw her in March 2009 when the peripheral haemorrhages in the right eye had increased, as can be seen on Figure 5 and in the greyscale Figure 5a. There is also an area of ‘white without pressure’ which is also obvious with the Optomap system.

The interesting aspects of this particular case were:
- The retinal detachment was longstanding. The areas of pigmentation confirmed this.
- The detachment was in the ‘good’ eye (other eye amblyopic) and yet the patient was asymptomatic. This could easily have been missed using a standard fundus camera as the
edge would probably just have been visible and could have been mistaken for ‘ordinary’ pigment. Also, the detachment was not that ‘obvious’ with ophthalmoscopy and could have been missed or mistaken for something like choroiditis.

The retinal detachment was detected by fields. This emphasises the importance of routine, accurate fields evaluation and to be on the lookout for any repeatable defect no matter how insignificant it may seem.

Subtle peripheral haemorrhages are often evident with the Optomap retinal exam when they would not be easily seen with conventional ophthalmoscopy. Note: haemorrhages are best viewed with the Optomap using the green greyscale laser separation.

For further information on the Optomap retinal exam, contact Optos on 0808 100 4546 or visit www.optos.com.

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OPTOS ACADEMIES

Optos held two academies recently at Stansted and Leeds. These continuing education events were extremely well attended by both optometrists and clinical assistants.

The CET programme included lectures on retinal detachments by international speakers Professor Carl Arndt from University Hospital in Reims and Prof Emanuel Rosen of the Rosen Eye Clinic. Kevin Lewis from Euin Steele Optometrists spoke of retinal pathologies and the referral process and Dr Simon Barnard, Barnard Levit Optometrists, gave examples of peripheral retinal pathologies with case studies from his practice and their management.

There were sessions for Optomap operators on 'Five star customer service' as well as advanced imaging techniques by Mark Braddon of Optos. Douglas Anderson, founder of Optos, concluded the evening by reminding attendees of the importance of the Optomap retinal exam in assisting in the detection of retinal pathologies and how this should be available to everyone. He also gave the background to the Optomap retinal exam where his five-year-old son lost the sight in one eye due to a retinal detachment detected too late.