

NELSON'S EYE



Bulletin 2. August 2003

This bulletin and the next will focus on ways you and your patients can save sight.

Diabetic Retinopathy(DR)

DR is a microangiopathy affecting the retinal precapillary arterioles, capillaries and venules. The retina has the richest blood supply in the body and DR has features of both microvascular occlusion and leakage. DR remains the most common cause of legal blindness in individuals between the ages of 20-65 years. Much of this blindness is preventable.

Risk factors for DR

1. Duration of diabetes – most important factor.
2. Good metabolic control – will not prevent DR but will delay its development.
3. Miscellaneous factors : pregnancy can be associated with a rapid progression of DR; hypertension; renal disease; other factors like obesity, smoking, hyperlipidaemia and anaemia.

Did you know?

- a) 7.4% of Australians over age 25 have diabetes: current NZ prevalence is 4% but 9% of Pakeha and 30% of Maori will develop diabetes in their lifetime
- b) patient's without diabetic retinopathy (DR) who have tight control of their diabetes have a 76% reduction in their risk of developing DR over a 9-year period;
- c) further worsening of pre-existing DR reduces by 54% in tightly controlled diabetics;
- d) both proteinuria and microalbuminuria are predictive for the development of proliferative diabetic retinopathy;
- e) patient's with elevated serum cholesterol levels are twice as likely to have retinal hard exudates;
- f) the UK Prospective Diabetes Study showed that a group with an average BP 144/82 vs 154/87 (a seemingly unimpressive difference) had the following benefits over an 8-year period.
 - i) 32% reduction in deaths related to diabetes
 - ii) 44% reduction in strokes
 - iii) 34% reduction in DR progression
 - iv) 47% reduction in visual field loss
- g) the UK Prospective Diabetes Study showed that every percentage point decrease in glycosylated haemoglobin (eg from 9% to 8%) was accompanied by a 35% reduction in the risk of microvascular complications.

DR photoscreening in Nelson

Firstly, a bouquet of flowers to you all. The prevalence of diabetics requiring laser photocoagulation has markedly reduced over recent years – and this is simply attributable to you and your patients' efforts to optimise glycaemic control.

The Nelson Photo Screening Programme was set up in the late 1980s in order to offer a prompt, timely triage service to Nelson diabetics. Prior to that time, patients were seen by referral when vision problems arose. This was often too late for useful treatment. Photo screening is the preferred referral pathway for your diabetic patients requiring exclusion of diabetic retinopathy. However, patients with significant retinopathy, patients who have undergone laser retinal therapy, patients with cataract (or other eye problems) should be referred for clinical assessment – either at NPH or privately.

All diabetics should be screened at diagnosis and 2 yearly thereafter. Please use our photo screening referral forms (supplied through NPH Stores or Eye Clinic) as it collects data that we need. Warn patients that they will have their pupils dilated and so will need sunglasses and a driver! The photos are reviewed by Shaun McKenzie-Pollock and the report sent to you along with a small copy of each posterior pole photo. We use a digital retinal camera and the images are stored electronically. If the photos suggest no more than minimal retinopathy you will be asked to refer the patient in a further 1 - 2 yrs. The Eye Clinic does not recall patients as our system is not reliable and, anyhow, patients change addresses and GP! Patients with significant retinopathy or hazy ocular media so that photo quality is inadequate, should be referred to the Eye Clinic with health & medication details.

Just a wee reminder: patients who are already regular Eye Clinic attenders do not require referral for photoscreening.

New Approaches to DR

Include: vascular endothelial growth factor inhibitors; intravitreal steroids; oral protein kinase C inhibitors (LY333531). Watch this space!

Take Home Message

- refer your diabetic patients to DR photo screening
- treat your diabetic patients aggressively - BP < 144/82, HbA1C < 7.0%, (don't accept slightly high blood sugars or BP's, and encourage patients to lose weight and stop smoking)

I look forward to your comments, requests and opinions.

Regards, Graham Wilson