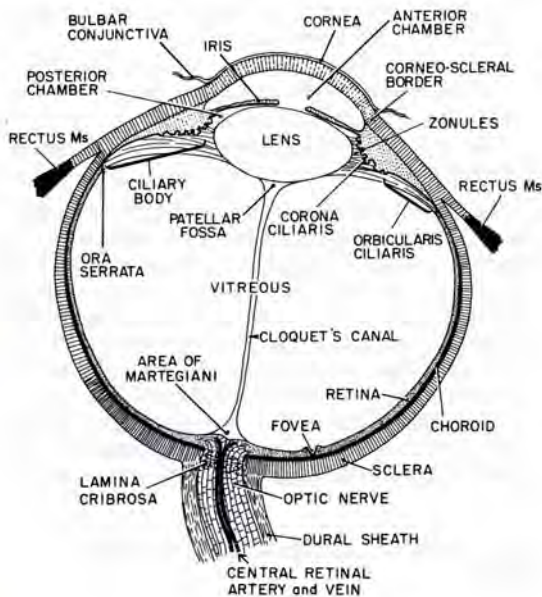


What You Should Know About Exudative Retinal Detachment

By David J. Browning, MD, PhD

The retina is nerve tissue that lines the back of the eye like the film in a camera. Light is focused on the retina and the retinal photoreceptors convert the light into nerve signals that travel to the brain via the optic nerve. Figure 1 illustrates the anatomy of the eye. For the retina to function properly, it must be apposed to the back wall. In some diseases, a collection of fluid accumulates between the retina and the next layer outward, the retinal pigment epithelium. The interposed layer of fluid prevents the retina from properly functioning, and the patient notices the problem as a blurred area of the visual field. Sometimes, light flashes are also recognized, more often at night when the lights are turned off. There are two ways that fluid can get between the retina and the retinal pigment epithelium. In the most common way, the retina tears, and the resulting condition is called a rhegmatogenous retinal detachment. This problem requires surgery to repair, and we will not consider it further in this brochure. Less commonly, the natural pumping of fluid outward by the retinal pigment epithelium is impaired, or fluid leaks through the normally impermeable retinal pigment epithelium from the underlying layer of blood vessels known as the choroid. This situation produces an exudative retinal detachment, also called a serous retinal detachment.

Figure 1. Anatomy of the Eye



What Causes Exudative Retinal Detachment?

There are many causes of exudative retinal detachment. Blocked retinal veins can cause excessive leakage of serum through the vessel walls into the retina. The natural pathway for the fluid is to move outward. If the leakage exceeds the ability of the retinal pigment epithelium to pump it away, an exudative retinal detachment results.

Inflammatory conditions such as posterior scleritis can cause blood vessel walls to leak and can cause exudative retinal detachments. Other inflammatory diseases associated with exudative retinal detachment include Vogt – Koyanagi – Harada (VKH) disease and relapsing polychondritis. Such inflammatory conditions are usually treated with variations of prednisone.

Patients with imbalances in blood pressure and kidney function can develop exudative retinal detachment. Renal dialysis, severe hypertension, and toxemia of pregnancy can cause this. Regulation of blood pressure and correction of electrolyte imbalances will lead to resolution of the subretinal fluid.

Choroidal melanomas, metastatic cancer to the choroid, and occasionally choroidal nevi (moles) can cause exudative retinal detachment. Laser treatment or radiation therapy in the case of melanoma or metastasis is used to treat these conditions.

These are but a few of the many conditions that can cause exudative retinal detachment. The treatments are as varied as the causes, and it is best to discuss the specifics with your retina specialist.

Normal Fundus



Exudative Retinal Detachment



After you read this brochure, we encourage you to browse our website. If you have a focused question for which you cannot find an answer, we welcome you to ask Dr. Browning at: contact@retinareference.com. Also, an excellent resource for medical literature is Pubmed, on the National Library of Medicine website, accessible at www.pubmed.com.