What You Should Know About Choroidal Nevi

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Choroidal nevi are pigmented spots in the back of the eye. They are not something a patient would ever be aware that he had. They are typically discovered on examination when the ophthalmologist looks in the back of the eye, usually with the pupils dilated with drops. They are almost never a threat to vision. Their importance lies in the rare possibility that they can become malignant tumors called melanomas. Melanomas require treatment whereas nevi almost never do.

Moles of the Eye?

A common name for a nevus is mole. Everyone is familiar with moles, or nevi, of the skin. These moles are made up of cells containing brown pigment. The same types of pigmented cells, called melanocytes, are found in the back of the eye in a tissue layer called the choroid. Figure 1 below shows this layer, which lies just behind the retina where light in the eye is focused. Like moles of the skin, choroidal moles appear commonly around puberty, reach a certain size, and then stop growing. They are entirely benign. Figure 2 shows what the mole looks like to the ophthalmologist when the eye is examined.

How Common?

Choroidal nevi are found in less than 10% of all people. The prevalence depends on race. The highest prevalence is in whites (4.1%).(1) The prevalence in Chinese is 2.9% and in Hispanics 1.2%.(2) Blacks have the lowest prevalence at 0.7%.

Fig. 1
How Often Do They Become Cancers?

It is estimated that 1 person in every 5000 per year who has a choroidal nevus will develop a melanoma.

Fig. 2

Legend: The border of the choroidal nevus is indicated by the yellow arrows. The white dots on the surface (green arrow) are drusen, which are collections of metabolic waste material and a sign of benignity.

What Should Be Done About Choroidal Nevi?

Choroidal nevi should be photographed (as in fig. 2) so that an objective documentation of size exists. Thereafter, they need only be examined yearly to compare size with the baseline photographs. Sometimes, repeat photographs are obtained for a more accurate comparison of size. If choroidal nevi are not flat, a measurement of thickness using ultrasound is often useful, and may be repeated at follow-up visits to look for growth.

Very Rare Mischief in Nevi

Very rarely, choroidal nevi can cause leakage of fluid under the retina or can be associated with growth of abnormal new blood vessels under the retina, which can bleed. If the nevus is near the center of the retina, this rare behavior can cause loss of vision. Many
times laser treatment can reverse these problems. These occurrences happen in less than 1% of nevi.

After reading this document, if you have further questions and interest, you can browse the Images section of this website. An additional excellent resource is the National Library of Medicine website called PubMed. It can be accessed via any search engine, or directly at this link, http://www.ncbi.nlm.nih.gov/entrez/query.fcgi. It includes an extensive database of reliable articles published in peer-reviewed medical journals from all over the world.

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Reference List
