Bietti's Crystalline Dystrophy, Bietti's Crystalline Corneoretinal Dystrophy

Bietti's crystalline dystrophy (BCD) is an inherited eye disease that causes crystals to form in the cornea (*clear covering at the front of the eye*), and deposits to form in the retina (*nerve layer at the back of the eye*). This may result in increasing deterioration and visual loss, in the form of losing night vision and side vision. BCD is more common in people of Asian ancestry.

CAUSES

Bietti's crystalline dystrophy is an inherited disease. The pattern of inheritance is known as "recessive." That means that you could inherit the gene for BCD, but not have the disease itself. In this case, you are a "carrier" of the disease. If one of your parents is a carrier, you have a 50% chance of being a carrier yourself.

If both of your parents are carriers, you have a 25% chance of not receiving the gene for BCD, a 50% chance of being a carrier, and a 25% chance of having the disease. You must get the gene for BCD from both parents in order to have the disease itself.

SYMPTOMS

BCD symptoms include:

- Crystals in the clear covering of the eye (*cornea*).
- Yellow, shiny deposits on the nerve layer at the back of the eye (*retina*).
- Increasing wasting away (*atrophy*) of the retina, and the back layers of the eye (*choriocapillaries and choroid).*
- Increasing night blindness and a smaller visual field.

DIAGNOSIS

BCD can be diagnosed by an eye specialist, using special tools to examine the eyes. People with BCD may have abnormal crystals in their white blood cells. Blood tests and examining the white blood cells with a powerful microscope (*electronic microscope*) may confirm the diagnosis. Having these crystals in your white blood cells does not appear to affect your general health.

TREATMENT

There is no treatment for BCD. Genetic counseling is important for families who are known to have the disease or are known to have members who are carriers.

Document Released: 12/20/2004 Document Re-Released: 12/06/2010
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