Iridocorneal Endothelial Syndrome (also known as ICE Syndrome)

This syndrome is more common in women and typically diagnosed between ages 30-50. Iridocorneal endothelial (ICE) syndrome has three main features: (1) visible changes in the iris, the colored part of the eye that determines how much light enters the eye (2) corneal swelling; and (3) the development of glaucoma, a disease that can cause severe and irreversible vision loss. ICE usually only affects one eye.

ICE Syndrome is actually a group of three very similar conditions: iris nevus (or Cogan-Reese) syndrome; Chandler's syndrome; and essential (progressive) iris atrophy, which is where the acronym ICE comes. The most common feature of this group of diseases is the movement of endothelial cells from the cornea onto the iris. The loss of cells from the cornea often leads to corneal swelling, and their movement onto the iris creates distortion of the iris and variable degrees of distortion of the pupil. These cells can also clog the fluid outflow channels of the eye, causing glaucoma.

The cause of this disease is not known. Though we do not yet know how to keep ICE syndrome from progressing, the associated glaucoma can be controlled with topical medication, and a corneal transplant can treat the corneal swelling if necessary. If symptoms arise from too much light entering an abnormal pupil, specialized contact lenses can be prescribed to limit the amount of light entering the eye.