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Editorial Note

The Effect of Various Genetic Diseases and Eye Surgeries on Iris Discoloration

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Received Date: May 05, 2022; **Accepted Date:** May 23, 2022; **Published Date:** June 06, 2022.

Citation: Sina Moradi, Sobhan Sina, Shahab Chavoshi Thani, Habibeh Ramezanpour, Danial Rahimi, Ali Ahmadi. (2022) The Effect of Various Genetic Diseases and Eye Surgeries on Iris Discoloration. *J. Biomedical Research and Clinical Reviews*, 7(2); DOI:10.31579/2692-9406/120

Dear Editor,

The color of human eyes is often the same as the iris of the eye, which itself consists of two parts: the anterior layer of iris stroma and the posterior layer or posterior pigment epithelium. Based on experiments, it is believed that iris color is determined based on four factors: pigment granules in the posterior pigment epithelium, pigment concentration in iris stromal melanocytes, melanin pigments in iris melanocytes, and the scattering and absorption of light from the extracellular matrix properties of the stroma. Becomes. In general, melanocytes in theiris stroma have a greater effect on iris color. These types of cells contain a biopolymeric and inert substance called melanin, which itself has two types: brown-black or Eumelanin and red-yellow or Pheomelanin. Eye color in infants varies by race and genetics, st in whites it is often blue and in non-whites it is gray. [1] Becomes the main color. Eye color in some people undergoes changes that can be divided into two groups increased eye color such as heterochromia or multicolor and decreased eye color colors albinism or zali. Based on articles and research on genetic diseases that alter the color of the iris, syndromes have been found in which the color of the iris changes to what is called heterochromia and the iris becomes multicolored. Among these syndromes are Horner and Waardenburg syndromes. In Horner syndrome, a person has sympathetic disorders and in Waardenburg syndrome, an au ,the autosomal dominant genetic disorder occurs. Other syndromes include Sturge-weber, Parry-Romberg, Von Recklinghausen, and Hirschsprung syndromes. It used energy, which has much fewer side effects than other surgeries.[2] However, this surgery has not yet received the necessary permits and is not widely performed. Today, no definitive treatment has been discovered for the uniformity of eye color. Of course, this disease does not cause many problems for humans and it is possible to lead a normal life even with two different eye colors, but it should be noted that in some cases the eyes are different with different colors and appearance. It appears that the psychological burden caused by this disease is imposed on the patient in the community and reduces the person's self-confidence. Severe vision. Genetic testing plays an increasingly diagnostic and prognostic role in the management of patients with inherited thoracic aortic disease (HTAD). Identifying a specific type can establish or confirm the diagnosis of HTAD syndrome, dictate the extensive evaluation of the arterial tree in HTAD with known distal vascular involvement, and minimize more accurate follow-up and earlier surgical intervention in HTAD with a high risk of dissection.[3, 4] In this review, we present the latest evidence for the role of genetics in patients with HTAD. In almost 90% of cases, OI is inherited as an autosomal dominant trait. Inherited forms are often caused by mutations in the COL1A1 or COL1A2 genes, which encode α1 or α2 collagen chains of type I, respectively (Figure 1). The type I collagen molecule is a triple helix composed of two α1 and one α2 chain. The synthesis of type I collagen chains in ribosomal is associated with extensive post-translational changes. After secretion, terminal N and C propeptides are cleaved, allowing mature collagen molecules to form fibrils. Collagen fibers subsequently bind to form collagen fibers. 90% of the body's collagen is made up of type I collagen. This protein is the major structural component of bone, skin, eyes, and other tissues, and is composed primarily of fibroblasts and osteoblasts. In bone, it forms the framework for amineral deposition that is required to withstand compressive and flexural forces. People with type I collagen mutations can be classified into four defined types of OI. [5, 6]

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DOI: 10.31579/2692-9406/117