Case Report

A Rare Case of Thalassemia and Angioid Streaks

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Abstract
Here we describe a rare case of thalassemia and angioid streaks. Our patient was a woman who had been referred to our center due to reduction in vision over the past few years. She had a history of thalassemia major and related therapeutic interventions. The right eye sight was - 2/10 and the left eye sight was - 1/10. In her fundus view diffuse lesions were observed in both eyes. The patient was diagnosed as a case of angioid streak.

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Introduction

Angioid streak was first described in 1889 by Doyne as a fracture in the Bruch’s membrane, which often is seen as bilateral thin jagged lines in deep retinal layers.\(^1,2\)

The size, color and path of the lesions usually mimic vascular structures\(^3\). It mostly spreads from the optic nerve end towards the retinal edge but occasionally is observed in peripapillary region in a circular fashion\(^1,3\). The color of the lesion depends on the background color of the fundus and the degree of retinal pigment epithelium atrophy can vary from red to dark brown\(^3\). Diagnosis is usually easily achieved by ophthalmoscopy, but sometimes fluorescein angiography is required in suspected cases\(^4\). In fundus exam Peau d’orange (Leopard Skin) view, especially among patients with pseudoxanthoma elasticum is clearly identified\(^5\).

Case Report

Our patient was a woman referred to our center due to reduction in vision over the past few years. She had a history of thalassemia major and related therapeutic interventions. The right eye sight was -2/10 and the left eye sight was -1/10. In her fundus view diffuse lesions were observed in both eyes (Figure 1). The patient was diagnosed as a case of Angioid Streak.

![Figure 1: Diffuse lesions spreading from the optic nerve end towards the retinal edge in a patient with thalassemia major and angioid streak](image-url)
Discussion

Angioid streaks have been described in pseudoxanthoma elasticum and Paget’s disease as well as several hemoglobinopathies including homozygous sickle cell anaemia, sickle cell trait, sickle cell hemoglobin C disease, sickle cell thalassaemia, and thalassaemia.

Beta thalassemia is a dominantly inherited condition in which the patient has an inability to form beta globin chains resulting in variable phenotypes ranging from severe anemia to clinically asymptomatic individuals. It seems that the association between angioid streaks and hemoglobinopathies including thalassemia is of significance and not a chance phenomenon. Here we described a case of thalassemia major and angioid streaks which despite its rarity should be considered by ophthalmologists in thalassemia patients with impaired visual acuity.
References


Footnotes and Financial Disclosures

Conflict of Interest:
The authors declare no conflict of interest with the subject matter of the present manuscript.