

Post-Traumatic Scleromalacia: A Case Report

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Abstract

Post-traumatic scleromalacia is a rare ocular condition characterized by the thinning of the sclera following trauma, making it transparent and allowing the visualization of the underlying pigmented uvea. This case report describes the presentation, diagnosis, and management of a 26-year-old male who experienced ocular trauma at the age of five, leading to scleromalacia. The case highlights the importance of recognizing this condition and outlines the therapeutic approaches taken to manage the symptoms and prevent further ocular damage.

Keywords: Post-traumatic scleromalacia, Scleral thinning, Ocular trauma, Uveal hernia

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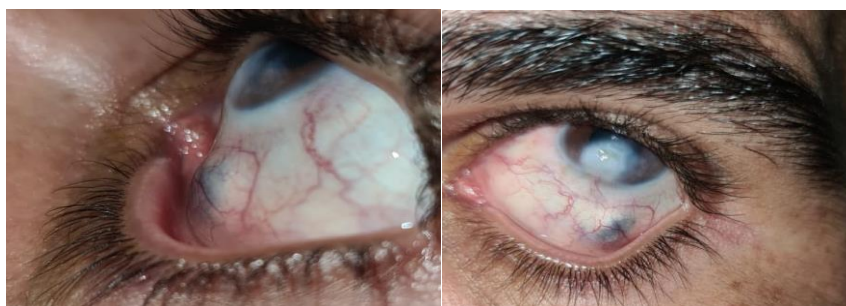
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I. Introduction:

Scleromalacia refers to a degenerative thinning of the sclera, which becomes transparent, exposing the underlying pigmented uvea. This condition is typically associated with systemic diseases such as rheumatoid arthritis and other vasculitides. However, it can also arise secondary to ocular traumas that mechanically weaken the sclera, leading to potentially severe complications if not promptly and adequately managed. Understanding the etiological factors and the pathophysiology of post-traumatic scleromalacia is crucial for effective management and prevention of progression to more severe outcomes.

II. Materials And Methods:

We report the case of a 26-year-old male with a history of ocular trauma to the left eye at the age of 5 years, admitted to the ophthalmological emergency department for a painful red left eye with the appearance of a pigmented mass following a foreign body projection 4 days prior to his admission. On ophthalmological examination, he had a corrected visual acuity of 10/10 in the right eye and positive light perception in the left eye with a 6mm by 4mm pigmented conjunctival mass in the inferior without conjunctival breach, associated with corneal opacity from 6h to 8h obstructing the visual axis with inferior neovascular call and an ocular tone at 40 mmHg.



The examination of the contralateral eye was unremarkable. He underwent an ocular CT scan that showed no intraocular foreign body. An UBM was requested, revealing a transsonic content communicating with the vitreous cavity, corresponding to a uveal hernia in favor of scleromalacia. The patient was treated with oral acetazolamide-based hypotensive treatment and a triple therapy consisting of a beta-blocker, alpha2 adrenergic, and dorzolamide with close monitoring. The evolution was marked by a normalization of ocular tone under treatment, and the decision was for therapeutic abstention with close monitoring.

III. Discussion:

The sclera, the outermost and most resilient layer of the eye, serves as a protective mechanical shield. Scleromalacia is a weakening of this structure, where it becomes thin and transparent, revealing the pigmented uvea underneath. This condition can arise from various issues, including necrotizing scleritis associated with

systemic diseases like rheumatoid arthritis or connective tissue-impacting vasculitides such as Wegener's granulomatosis can cause this condition. Post-traumatic scleromalacia is particularly rare.

Treatment aims to stabilize the scleromalacia and may include non-steroidal anti-inflammatory drugs, corticosteroids, and immunomodulators for cases linked to autoimmune scleritis. Surgical options are considered for critical scleral thinning with a high risk of perforation.

IV. Conclusion:

The post-traumatic origin is one of the rare causes of scleromalacia. It is secondary to a mechanical process altering scleral integrity. Clinical history taking is a crucial step in the diagnostic study to establish an appropriate therapeutic approach.

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- [3] Scleromalacia Perforans In Young Patient: A Unique Case Annisa Karima¹ , Delfitri Lutfi¹ , Awalia² , Ismi Zuhria¹ Bali Medical Journal(Bali Medj) 2023, Volume 12, Number 2: 1821-1826 P-Issn.2089-1180, E-Issn: 2302-2914