OPEN ANGLE GLAUCOMA ASSOCIATED WITH OSTEOGENESIS IMPERFECTA

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Purpose: To report the clinical manifestations and treatment of advanced open angle glaucoma in an adult with osteogenesis imperfecta (OI).

Method: Case report.

Result: A 36-year-old woman complained of progressive loss of vision OU in recent 3 months. She had received refractive surgery for high myopia 10 years ago and glaucoma had been noted for several years. Trabeculectomy had been attempted by another ophthalmologist but was aborted due to very thin sclera. She was referred to us for medication-uncontrollable intraocular pressure (IOP) (>30 mmHg) and suspected melanoma in both eyes. Ocular examination showed thin cornea (321μm OD, 330 μm OS), bilateral blue sclera, and vertical cup-to-disc ratio of 0.9 OD 0.95 OS. Fundoscopy and imaging study showed no evidence of ocular melanoma. The diagnosis of OI was made based on history of frequent bone fractures, short stature, severe kyphosis, and barrel-shaped rib cage. The patient then underwent diode laser trascleral cyclophotocoagulation (TSCP) with reduced power in both eyes. The post-operative IOP was well controlled during the 4-month follow-up period.

Conclusion: The cornea and sclera are thin in patients with OI, especially in the subtypes with blue sclera. Glaucoma surgery carries a high risk of complications for these eyes. Diode TSCP with reduced power may serve as a feasible option for eyes with medication-uncontrollable IOP.

Key words: Osteogenesis imperfecta, blue sclera, open angle glaucoma

INTRODUCTION

Osteogenesis Imperfecta (OI) is a rare heritable disorder characterized by bone fragility and low bone mass with a wide spectrum of clinical expression. Blue sclera and thin cornea are distinctive features in affected individuals, which have value as diagnostic markers distin-

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