A Case of Intraretinal and Preretinal Hemorrhages Thought to Develop due to Garlic Extract

Sarımsak Ekstresine Bağlı Olarak Geliştiği Düşünülen Bir İntraretinal ve Preretinal Hemoraji Olgusu*

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ABSTRACT

A 40-year-old male patient presented at our clinic with sudden onset of right vision loss. The history revealed that the sudden vision loss had occurred while performing daily office tasks and he had not been involved in any forceful physical activity. He had been using garlic extract daily for the last 2 years for hypercholesterolemia. On fundoscopic examination, intraretinal hemorrhages were present at the macula and there were preretinal hemorrhages around the optic disc in the right eye. A diagnosis of valsalva-like retinopathy was made. The final follow-up revealed that the macular intraretinal hemorrhages and the preretinal hemorrhages around the optic disc had been resorbed. In conclusion, we believe that garlic extracts showed similar effects to anticoagulant drugs and facilitated the development of valsalva-like retinopathy in this case while also increasing the severity of the hemorrhages.

Key Words: Clopidogrel, garlic, valsalva maneuver.

ÖZ

Kırk yaşındaki erkek hasta sağ gözünde ani başlayan görme kaybı ile kliniğimize başvurdu. Hastanın hikayesinden ani görme azalmasının günlük ofis işlerini yaparken oluştuğu ve kendisini zorlayacak herhangi bir fiziksel aktivitede bulunmadığı öğrenildi. Hiperkolesterolemi nedeni ile 2 yıldır günlük sarımsak ekstresi kullanmaktaydı. Fundoskopik muayenede sağ gözde makulada intraretinal ve optik disk çevresinde preretinal hemorajiler mevcuttu. Hasta olası valsalva retinopatisi tanısı ile takibe alındı. Hastanın son kontrolünde makuladaki intraretinal hemorajiler ve optik disk çevresindeki preretinal hemorajiler rezorbe olmuştu. Sonuç olarak bu olguda sarımsak ekstrelerinin antikoagülan ilaçlarla benzer etki göstererek olası valsalva retinopatisi gelişmesini kolaylaştırdığını ve hemorajilerin şiddetini artırdığını düşünmekteyiz.

Anahtar Kelimeler: Klopidogrel, sarımsak, valsalva manevrası.

INTRODUCTION

Valsalva-like retinopathy occurs as intraocular hemorrhage due to the effects of increased intra-abdominal and intra-thoracic pressure on the eye. It can develop following strenuous physical exercise, vomiting, severe cough, pregnancy and various surgeries.[1-3] It usually resolves in weeks-months without sequelae. The treatment is therefore based on observation. The Nd-YAG laser can be used for the rapid resolution of pre-retinal hemorrhages in some cases.[4]

We report a possible valsalva retinopathy case that developed following the daily use of garlic extract.

**Bu çalışma TOD 46. Ulusal Oftalmoloji Kongresi'nde sunulmuştur.*

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Geliş Tarihi - Received: 12.03.2013
Kabul Tarihi - Accepted: 02.07.2013
Ret-Vit 2014;22:236-238

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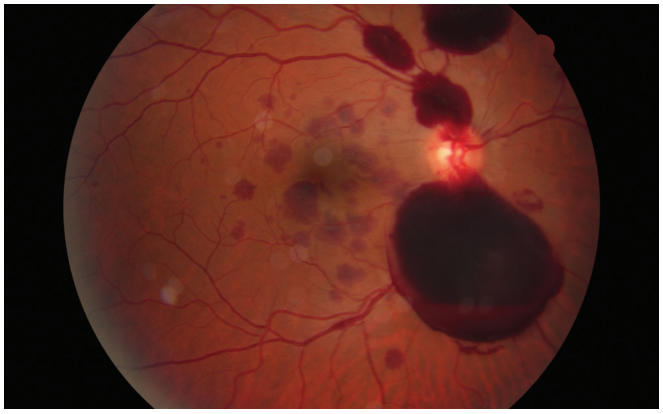

Figure 1: *Intraretinal and preretinal hemorrhages in the right eye at the initial ophthalmological examination.*

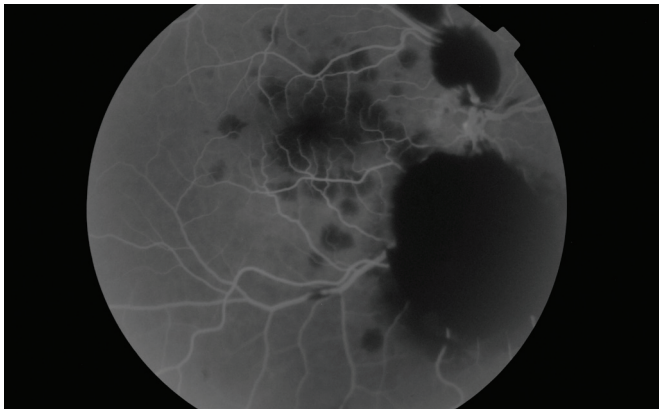

Figure 2: *Fundus fluorescein angiography revealed hypofluorescence in the hemorrhagic areas and no staining of leakage or pooling.*

CASE REPORT

A 40-year-old male patient presented with sudden onset vision loss in our clinic. The history revealed that the sudden vision loss had occurred while performing daily office tasks and he had not been involved in any forceful physical activity.

He had been using garlic extract daily for the last 2 years for hypercholesterolemia. He was not using any other medication or herbal drugs and there was also no predisposing factor such cough or constipation. The visual acuity was 20/40 in the right eye and 20/20 in the left.

The anterior segment examinations of both eyes were normal. On fundoscopic examination, intra-retinal hemorrhages were present at the macula and there were pre-retinal hemorrhages around the optic disc in the right eye (Figure 1) while the left eye was normal. The intraocular pressure was 14 mmHg in the right eye and 13 mmHg in the left eye.

Fundus fluorescein angiography revealed hypofluorescence in the hemorrhagic areas and no staining of leakage or pooling (Figure 2). The bleeding time screening tests were normal and there was no other disease that would create a bleeding tendency. The blood pressure and full blood count were normal.

There were no hematologic, rheumatologic, cardiovascular disease or other systemic disease. The garlic extract that the patient was using was stopped. A diagnosis of possible valsalva retinopathy was made. On the one-month follow-up, the visual acuity was 20/20, and the hemorrhages were starting to be resorbed (Figure 3). On the 6th month follow-up, the intra-retinal hemorrhages in the macula and pre-retinal hemorrhages around the optic disc had been resorbed with blurring in the inferonasal vitreous (Figure 4).

DISCUSSION

The sudden closure of the glottis during the valsalva maneuver decreases the venous return to the heart and increases intra-abdominal and intra-thoracic pressure. There are no valve systems in the veins of the head and neck area. Intra-abdominal and intra-thoracic sudden pressure increases are therefore transmitted rapidly to the vascular system in these areas. The increased venous intraocular pressure tears the retinal capillaries, causing most frequently pre-retinal hemorrhages and also sub-retinal, retinal or intra-vitreal hemorrhages.[5]

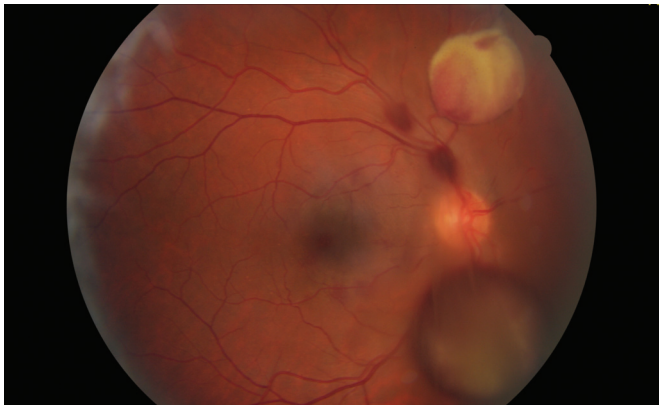

Figure 3: *Intraretinal and pre-retinal hemorrhages were starting to be resorbed on the one-month follow-up.*

Figure 4: *The hemorrhages had been resorbed with blurring in the inferonasal vitreous on the 6th month follow-up.*

Valsalva retinopathy developed without a significant predisposing factor in this case. The patient had been using garlic extract for 2 years for hypercholesterolemia. Garlic extracts are currently commonly used for the treatment of many diseases. They have been reported to decrease the morbidity and mortality rates in cardiovascular disorders.[6] They have also been shown to regulate the blood pressure in hypertensive patients, and decrease the total cholesterol and triglyceride levels with their anti-lipemic effect.[7] Garlic extracts also have anticoagulant effects that may be compared to clopidogrel.[8] Anticoagulant drugs used to decrease the stroke risk in the elderly and in cardiovascular disease have been shown to facilitate bleeding.[9,10]

This case did not have any factors that would facilitate the development of valsalva retinopathy such as cough, constipation or physical exercise. In conclusion, we believe that the garlic extracts showed effects similar to anticoagulant drugs, making the development of possible valsalva retinopathy easier and increasing the severity of hemorrhages in this case. The potential for possible valsalva retinopathy development should be considered in young adults who use garlic extracts and anticoagulant drugs.

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