

The Angioid Streaks

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Abstract

Original Research Article

Angioid streaks are a relatively rare complication and one of the etiologies of choroidal neovascularization. Asymptomatic at onset except at the complication stage where it is responsible for severe visual acuity decline with the macular syndrome. Diagnosis is clinically confirmed by angiography and OCT. Interest to propose a therapeutic adapted according to the localization and exudative phenomena of the neovessels. The prognosis is gloomy but seems improved by the arrival of anti-VEGF.

Keywords: Angioid streaks, neovascularization, anti-VEGF, Optical Coherence Tomography (OCT).

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INTRODUCTION

Angioid striations or Knapp striations iares a relatively rare pathology. It corresponds to cracks in the BRUCK membrane which manifests at the back of the eye by irregular, serrated, and deeply pigmented lines [1]. Often associated with general lesions such as elastic pseudoxanthoma, sickle cell disease, Paget's disease, Ehlers Danlos syndrome or osteogenesis imperfecta [2].

CLINICAL CASE

A 55-year-old patient presenting for a greater decrease in bilateral visual acuity of the right side with metamorphosis macular syndrome, positive and relative scotoma with macropsis of the same side or greater decrease.

Visual acuity was at 1/10 P1 OD with no improvement and at 5/10 P2 OG with 7/10 P3 correction.

AMSLER grill objective metamorphosie + scotoma. Normal anterior segment of both ribs with 12 mmHg ocular tone in both eyes.

The examination of the fundus of the eye finds an aspect of the angioid streaks in the two complicated eyes macular hemorrhage secondary to choroidal neovascularization with fibrosis under retinal OD (Figure 1).

Fluorescein angiography objectified angioid streaks in both eyes with colloid drusens, associated with right eye macular hemorrhage (Figure 2).

Macular Optical Coherence Tomography (OCT) reveals choroidal neovessels associated with retinal detachment of OD and complex disorganisation of the pigment epithelium membrane of BRUCH OG (Figure 3).

The general examination is normal. Patient received 3 repeated intravitreal injections with 1.20 mg bevacizumab (0.05 CC) at the most affected eye with clear clinical improvement (AV 5/10 P2 OD) and angiographic (Figure 4).

The patient was followed regularly in consultation which consisted of a visual acuity assessment, Amsler grid assessment, retinography and OCT monitoring.

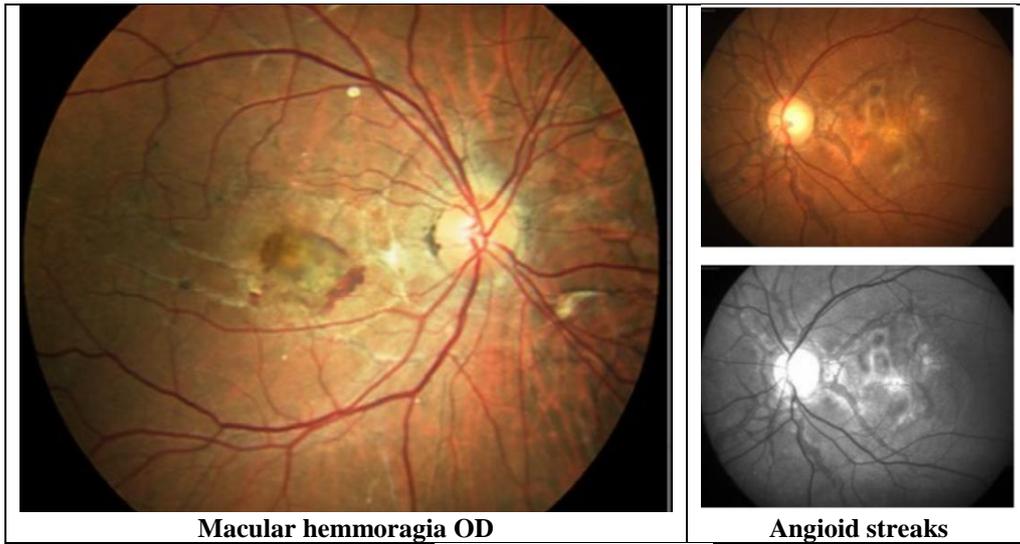


Figure 1: Aspect of the eye fundus

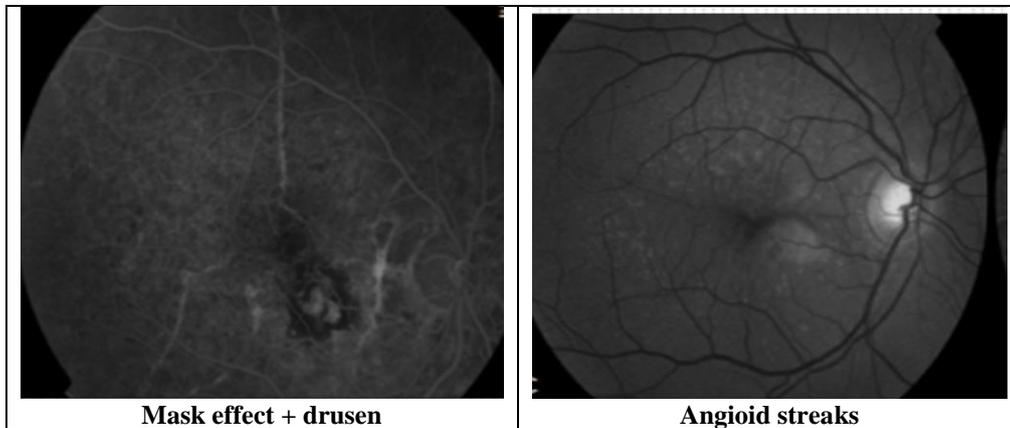


Figure 2: Angiographic aspect

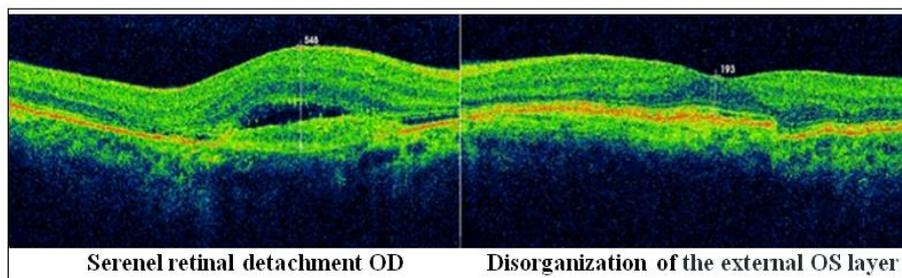


Figure 3: OCT Aspect

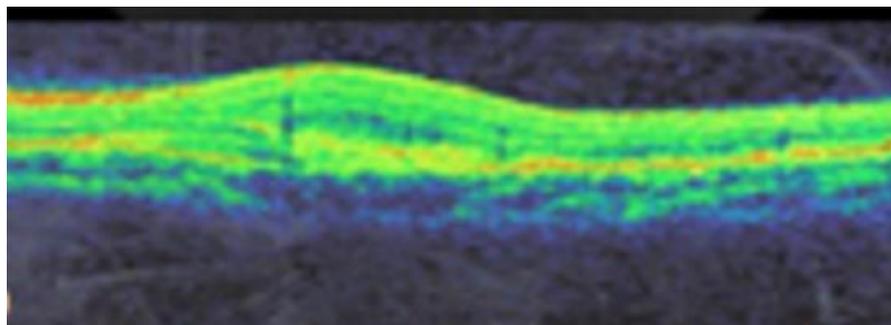


Figure 4: Reaping of anti VEGF post IVT retinal detachment

DISCUSSION

Angioid striations correspond to ruptures of the Bruch membrane, visible in the form of radial, dark or reddish lines from the papilla and whose potential evolutionary risk is the emergence of choroidal neovessels [3].

Usually asymptomatic, these streaks can neovascularize and cause macular syndrome with a marked decrease in visual acuity.

They can be isolated as is the case of our patient or associated with general pathologies mainly the elastic pseudoxanthoma with the classic risk of cardiovascular complications [4].

The diagnosis is clinically confirmed by imaging based on fluorescein angiography, indocyanine green, and OCT

Complicated choroidal neovascular retinal serum detachment, macular hemorrhage, and macular edema are the main causes of low vision.

The management is done medically mainly by intravitreal injections of anti-vascular endothelial growth factor (VEGF) with proven efficacy, by physical treatment targeting the neovessels include argon laser photocoagulation, trans pupillary thermotherapy, or PDT [photo coagulation a verteporfine] [8] and sometimes surgically end ocular to drain a macular hematoma or translocation of the macular retina to photocoagulate retro macular neovessels.

Without forgetting systemic management if necessary. The choroidal neovessels previously responsible for blindness unavoidably are now supported by intravitreal injections of anti-VEGF molecules [ranibizumab, bevacizumab, pegaptanib anti-VEGF trape EYE] with certain effectiveness.

CONCLUSION

Angioid streaks are a fundus pathology and one of the etiologies of choroidal neovascularization [9, 11]. Asymptomatic at onset, mostly at the complication stage due to severe visual loss. Treatment is mainly medical sometimes physical. Its prognosis is dark and depends on macular condition and alteration of photoreceptors.

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