Following the Progression of Peripheral Exudative Hemorrhagic Chorioretinopathy

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Abstract:

A patient with retinal comorbidities of exudative age-related macular degeneration OU, non-proliferative diabetic retinopathy OU, hollenhorst plaques OD, and longstanding traumatic chorioretinal scar OS, presents with a new hemorrhagic peripheral retinal lesion OS.

I. Case History

- 91 year old Caucasian male, presents with several months of gradual, progressive blurry vision OU
- Chief complaint is the inability to read the newspaper, even with low vision magnifiers
- Medical history is remarkable for alzheimer’s disease, ulcerative colitis with colectomy, type II diabetes, hypertension, stage 2 kidney disease, peripheral sensory neuropathy, facial basal cell carcinoma, post-traumatic stress disorder, seizure disorder and non-metastasizing renal cell carcinoma
- Social history is remarkable for World War II veteran, married for 41 years who is in home based primary care, is legally blind and has a 45 pack-year history of smoking
- Ocular history remarkable for penetrating globe injury OS in 1943 from a screwdriver, cataract extraction OS in 1990s, and exudative age-related macular degeneration (AMD) OU

II. Pertinent findings

- Visual acuity with correction: 8/100- OD and 4/400 OS with Feinbloom
- Patient is unable to monitor Amsler grid due to reduced vision from AMD
- Anterior segment findings are unremarkable OU
- A peripapillary choroidal neovascular membrane (CNVM) is notable OD
- There is extensive geographic atrophy of the posterior pole OU
- There is a longstanding, 5DD fibrotic, heavily pigmented chorioretinal (CR) scar with overlying operculum superior-temporal peripheral retina OS secondary to trauma noted above
- A new peripheral bullous hemorrhagic pigment epithelial detachment (PED) with small associated RPE tear and adjacent subretinal hemorrhage are juxtaposed to the longstanding CR scar OS
III. Differential Diagnoses

- Primary: Peripheral exudative hemorrhagic chorioretinopathy (PEHCR) secondary to AMD
- PEHCR secondary to polypoidal choroidal vasculopathy
- Choroidal melanoma
- Metastatic retinal tumor
- Choroidal nevus
- Hypertrophy of the retinal pigment epithelium
- Retinal arterial macroaneurysm
- Retinal telangiectasia
- Retinal capillary hemangiomas
- Peripheral CNVM

IV. Diagnosis and Discussion

- Peripheral exudative hemorrhagic chorioretinopathy, secondary to AMD
- An uncommon, bilateral peripheral exudative-hemorrhagic retinal degeneration process of the eye (although unilateral involvement is more common than bilateral)
- Mean age 70-80
- Higher in Caucasians, with slight female preponderance
- Systemic hypertension and arteriosclerotic cardiovascular disease increases risk
- Usually asymptomatic; occasionally flashes/floaters or decreased vision from vitreous hemorrhage
- Usually temporal or inferior temporal retinal location
- Frequently associated with a PED, either dome shaped or multi-lobular; as well as subretinal fluid, exudation, and hemorrhage. Most cases result in peripheral disciform scarring
- B-scan ultrasound will show a dense, dome shaped lesion with high internal reflectivity, without intrinsic vascular pulsations
- Fluorescein angiography shows hypofluorescence around the lesion, late irregular hyperfluorescence of the lesion, however, it can be hard to appreciate choroidal neovascularization
- Indocyanine green angiography (ICGA) may aid in better visualization of the choroidal defects and any neovascularization
- It is hypothesized that PEHRC is of neovascular origin, but there is no histologic proof available to date
- There is a high association with AMD, up to 68.9% in 1 study. However, many argue that while PEHCR and AMD share some clinical features and an age-related prevalence, they are in fact 2 independent pathologic entities
- Others suggest that PEHCR is a sub-type of idiopathic polypoidal choroidal vasculopathy
V. Treatment and Management

- Self-limiting course
- Observation is the standard of care for these lesions
- Vitrectomy can be performed if the hemorrhage is large enough to break through the ILM into the vitreous
- Consideration for anti-VEGF injections if there is extensive retinal involvement, threat to the macula, or progressive lesions in monocular patients

VI. Conclusion

Peripheral exudative hemorrhagic chorioretinopathy is an uncommon peripheral lesion found primarily in elderly, Caucasian individuals. It is best visualized with ICGA, which shows a pathological choroidal vasculature beneath or adjacent to the lesion. These lesions tend to be self-limiting, and careful observation of the patients is the current standard of care.

References