

CASE REPORT OF WET MACULAR AMD

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Introduction

Age related macular degeneration (AMD) is the leading cause of severe vision loss in adults over age 60 [1]. The centers for disease control and prevention estimate that 1.8 million people have AMD [2]. Caucasians more affected by AMD than other races and women also develop AMD at an earlier age than men [1,2]. The macula is the part of retina affected by AMD, which is a small portion of the retina that is located on the inside of the back layer of the eye. AMD is a loss of central vision that can occur in two forms: dry (atrophic) and wet (exudative). Most affected people have the dry form [1]. While there is no specific treatment for dry AMD, studies have shown a potential benefit from vitamin supplements, a healthy diet and cessation of smoking [1,2,5]. The less common wet form may respond to intraocular injections of anti-vascular endothelial growth factor (anti-VEGF) medications if detected and treated early [3,4].

The case

A 70 years old female, complaining of poor vision and visual distortion in the right eye for the last two weeks, was found to have normal anterior segments of the same eye with a retinal fundus lesion as shown in Figure1. The figure shows macular sub retinal hemorrhage with few scattered small drusens around the hemorrhage, no other macular or peripheral punched out chorioretinallesions. The patient denied any past history of trauma, laser therapy or having HTN or DM.



FIGURE 1: RETINAL FUNDOSCOPY OF WET AMD

The discussion

From patient's history and retinal fundus appearance, the most diagnosis is age related macular degeneration. Other cases such as Presumed Ocular Histoplasmosis Syndrome (POHS), trauma, and Polypoidal Choroidal Vasculopathy (PCV) could have same appearance. Further investigations such as Intra Vascular Fluorescein Angiography (IVFA) should be obtained looking for focal leakage and to classify pathology as classic or occult, see Figure 2.

Optical Coherence Tomography (OCT) should also be performed for baseline retinal thickness and define retinal pathology [2]. If hemorrhage an issue indocyanine green (ICG) can be obtained to look for "hairpin" turns of Retinal Angiomatous Proliferation (RAP lesion) or polyp pattern seen in PCV [2].

The plan

IVFA and OCT are used to determine the extent of wet AMD (i.e., occult or classic). Would consider monthly treatment with anti- VEGF. Would follow macular thickness/fluid via OCT.



FIGURE 2: IVFA OF WET AMD

The ANCHOR (ANTI-VEGF vs. Photodynamic Therapy(PDT)) and MARINA (ANTI-VEGF.3mg vs. .5mg vs.Sham) [3,4] trial showed that monthly anti-VEGF for 24 months was effective at reducing vision loss and improving vision. The comparison of AMD Treatment Trial (CATT) proved Lucentis and Avastin have equal efficacy [3]. If lesion is temporal to the fovea, we should consider other options [2] such as (1) photodynamic therapy (PDT), as per the “Treatment of AMD with PDT(TAP), or (2) laser photocoagulation as per the “ Macular Photocoagulation Study (MPS).Neither study improved acuity nor had rates of stability like MARINA and ANCHOR [3,4].

Patient education

Patient should be educated about the natural history of AMD, and options of treatment,advise patient to stop smoking⁽⁵⁾ if applicable and prescribe vitamins⁽⁵⁾ to reduce the rate of progression to end stage AMD (wet or geographic) in the other eye.

References

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