

Melanoma Arising from Subretinal Hemorrhage

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Abstract

Hemorrhagic retinal detachment is relatively frequent, especially in elder patients, secondary to peripheral exudative hemorrhagic chorioretinopathy (PEHCR), exudative maculopathy, macroaneurysm, trauma and other conditions. We present two cases treated as hemorrhagic detachment that during follow up developed suspicious characteristics of melanoma, where confirmed with biopsy, and subsequently treated with brachytherapy. We reviewed 257 patients sent to our office since 1990 because of hemorrhagic retinal detachment, studied with ultrasonography and ophthalmoscopy, that never showed signs of malignancy.

Keywords: Choroidal Melanoma; Hemorrhagic Retinal Detachment; Peripheral Exudative Chorioretinopathy; Subretinal Hemorrhage

Introduction

Hemorrhagic retinal detachment is relatively frequent, especially in elder patients, secondary to peripheral exudative hemorrhagic chorioretinopathy (PEHCR), exudative maculopathy, macroaneurysm, trauma and other conditions. Primary presentation of choroidal melanoma as subretinal hemorrhage is extremely infrequent, we present two cases treated as hemorrhagic retinal detachment that during follow up developed suspicious characteristics of melanoma.

Case 1

A 75 Year old women presented with a peripheral subretinal hemorrhage in her left eye (OS VA 20/200) and submacular fluid (Figure 1A and 1B). It was diagnosed as a presumed peripheral exudative hemorrhagic chorioretinopathy (PEHCR) due to an extensive retinal pigment epithelial changes in the periphery and a heterogeneous ultrasound (USG) with high reflectivity and without vascular movements or apparent mass. It was treated with antiangiogenics with partial improvement (Figure 1C). One month after the patient developed a massive subretinal hemorrhage, including posterior pole (Figure 1D and 1E). Vitrectomy was performed with subretinal drainage of the hemorrhage and a silicone oil tamponade was made (Figure 1F). Almost a year after a new growth of a brown lesion was detected in the presumed hemorrhage (Figure 1G), a biopsy was performed confirming the diagnosis of a choroidal melanoma of the epithelioid stripe. The patient was treated with brachytherapy achieving complete atrophy of the choroidal lesions (Figure 1H). One year later a hepatic metastasis was diagnosed.

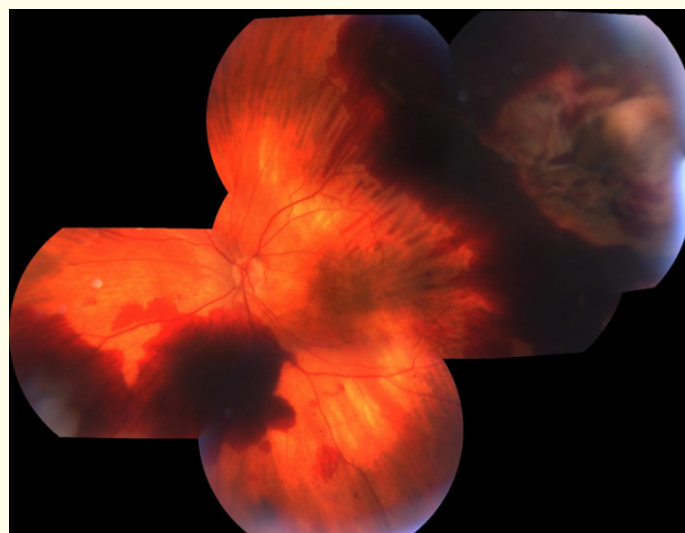


Figure 1A

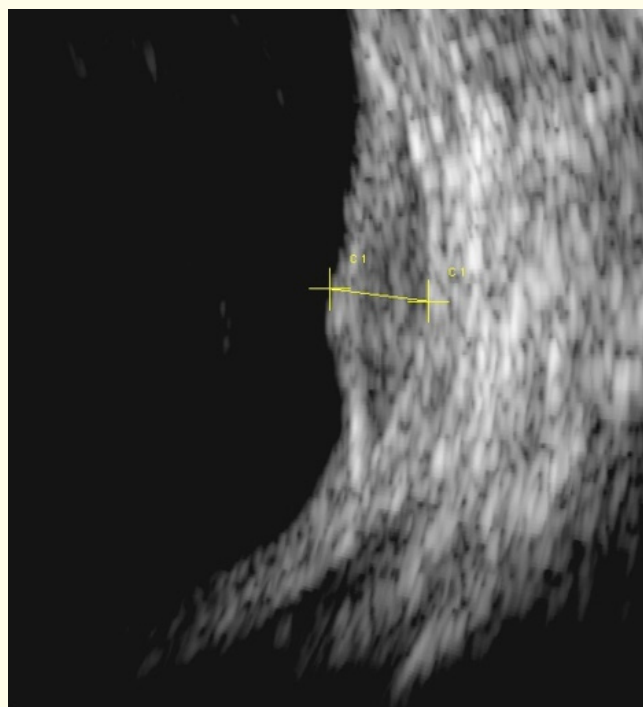


Figure 1B

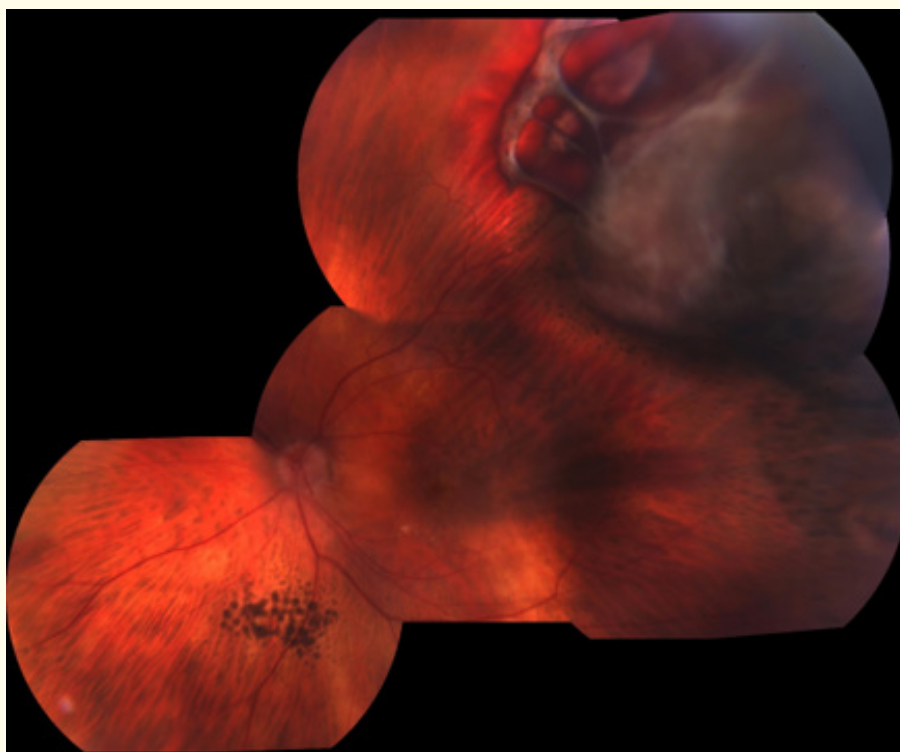


Figure 1C

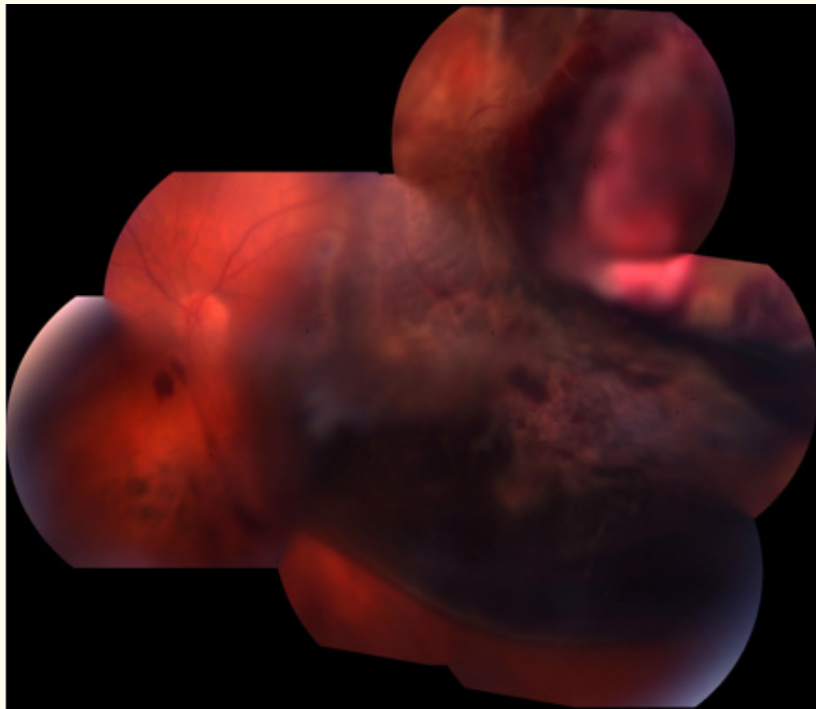


Figure 1D

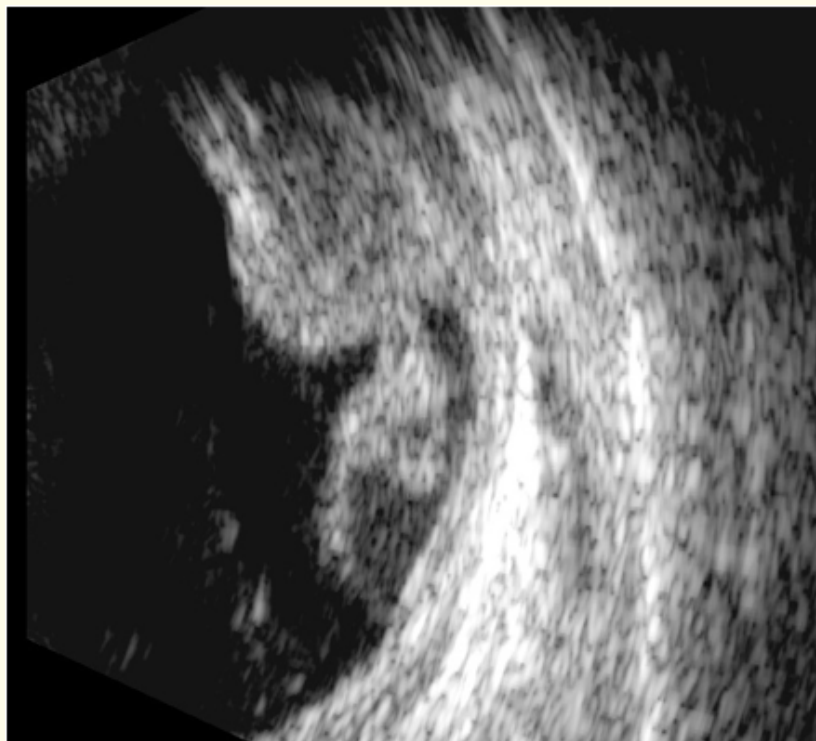


Figure 1E

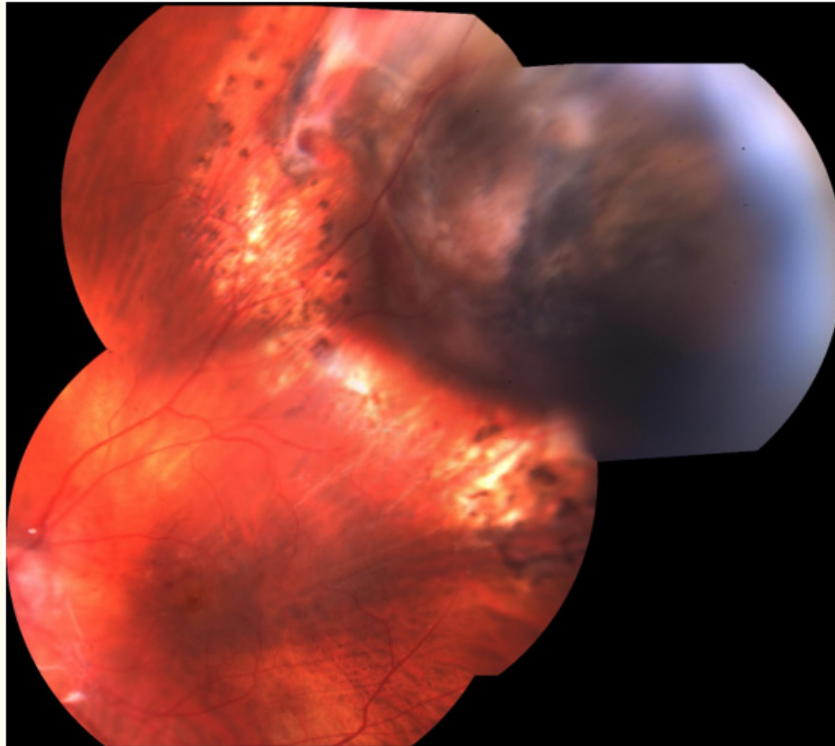


Figure 1F

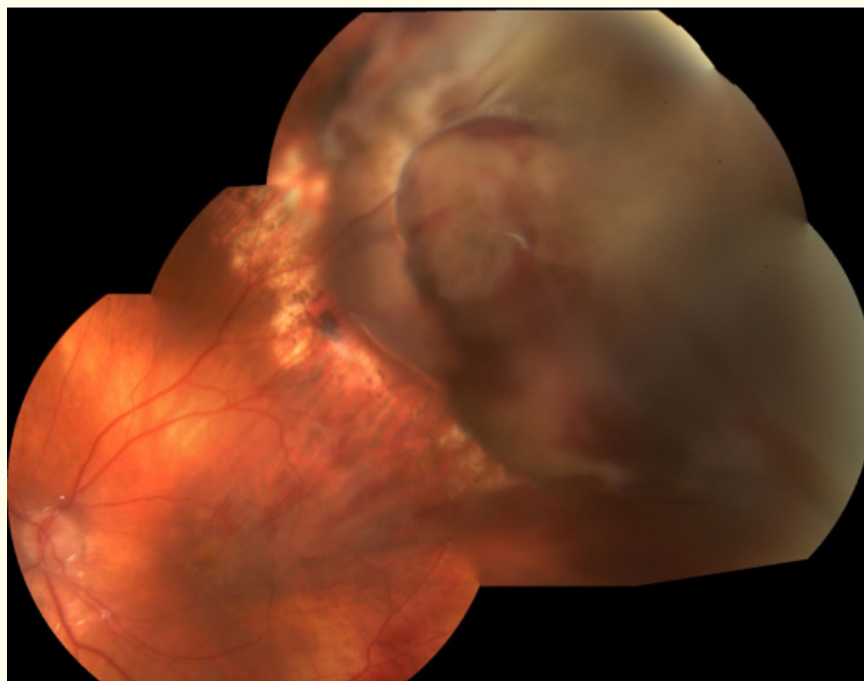


Figure 1G

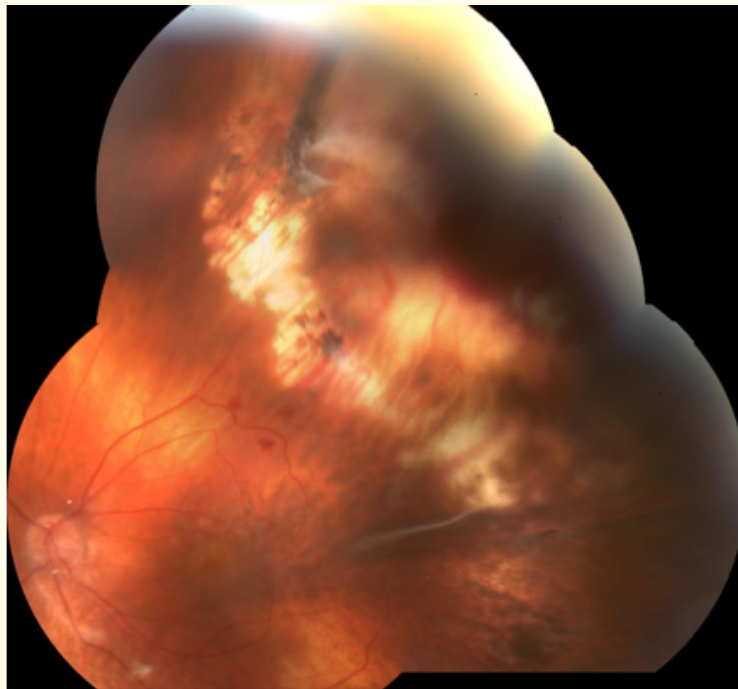


Figure 1H

Figure 1: May 2015 peripheral subretinal hemorrhage (Figure 1A). Ultrasound with heterogenous reflectivity, larger areas with high reflectivity, without vascular movements or apparent mass. (Figure 1B). Sep 2016 diminished hemorrhage (Figure 1C). Oct 2016 Massive subretinal hemorrhage (Figure 1D and 1E). Feb 2017 organized hemorrhage (Figure 1F). Aug 2017 Growth of brown lesion in the presumed hemorrhage (Figure 1G). Sep 2018 Atrophy of the choroidal lesion after brachytherapy (Figure 1H).

Case 2

43 Year old women presented with massive vitreous hemorrhage in her right eye (OD), larger in the superior temporal region, but included almost all the retina. USG was heterogeneous, with high reflectivity, and no nodular mass nor vascular movements (Figure 2A-2C). OS normal, no apparent cause for the disease.

Vitrectomy was performed with subretinal drainage of the hemorrhage and a silicone oil tamponade was made (Figure 2D-2E). One year later growth of brown lesion was detected, peripheral to the hemorrhage (Figure 2F). Silicon oil extraction combined with biopsy of the lesion by with the vitrectomy probe was performed confirming the diagnosis of uveal melanoma. USG without oil showed a low reflectivity peripheral mass, not visible previously (Figure 2G). Brachytherapy was performed with good response and no complications from radiation therapy.

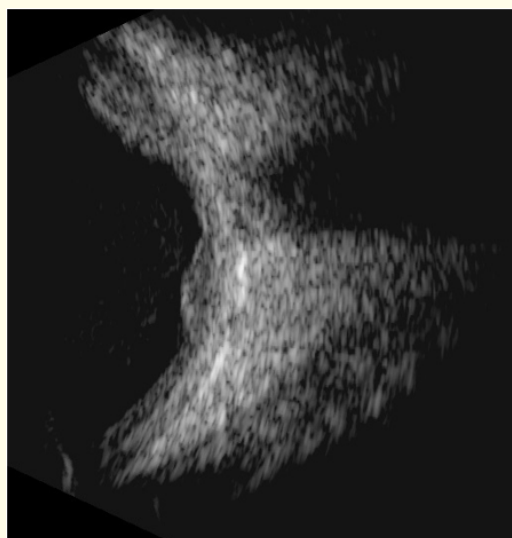


Figure 2A

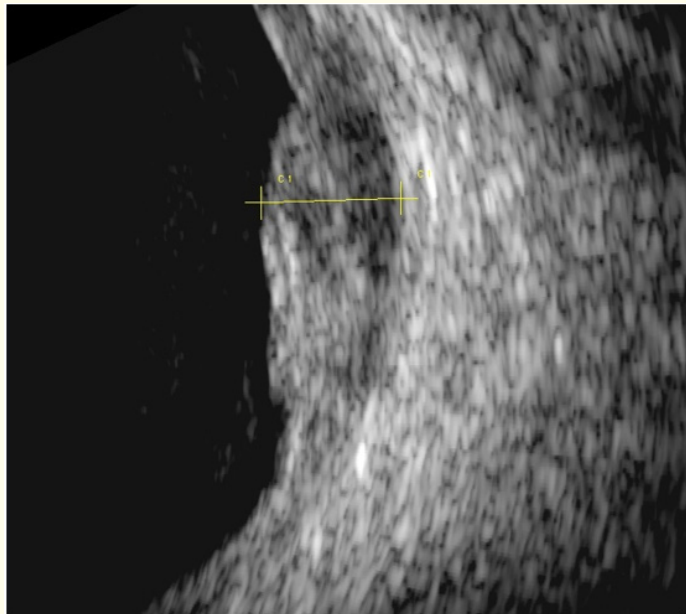


Figure 2B

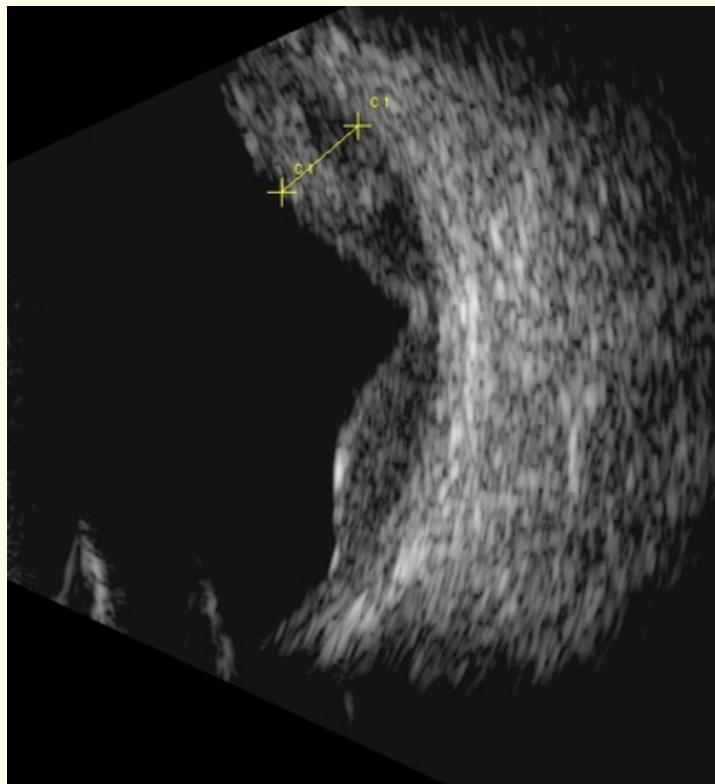


Figure 2C

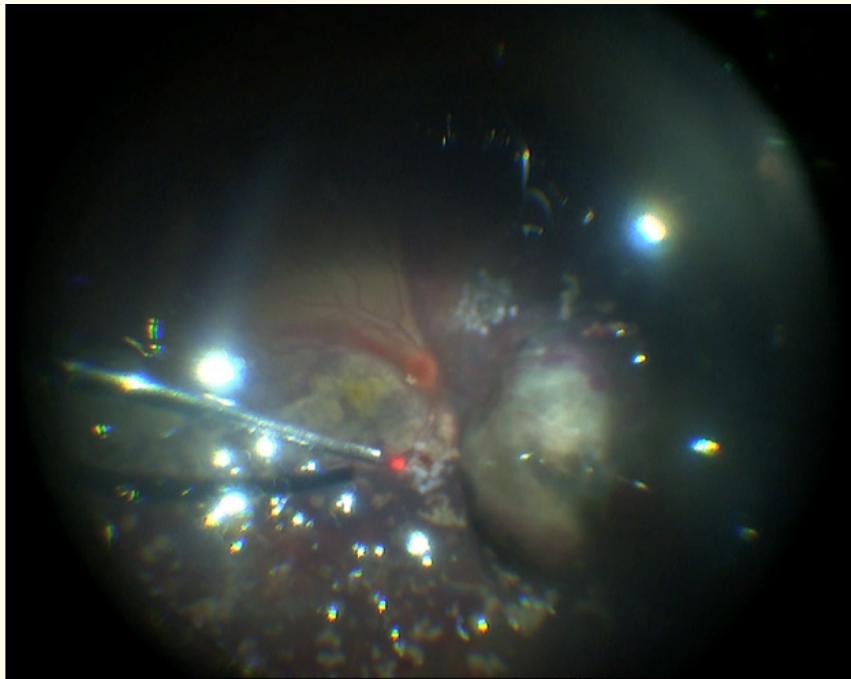


Figure 2D

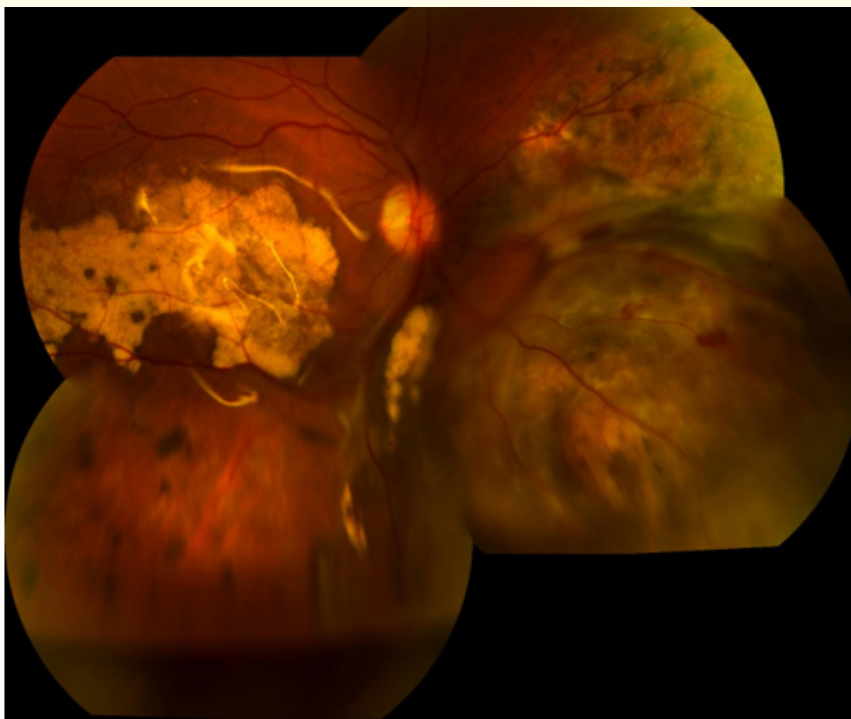


Figure 2E

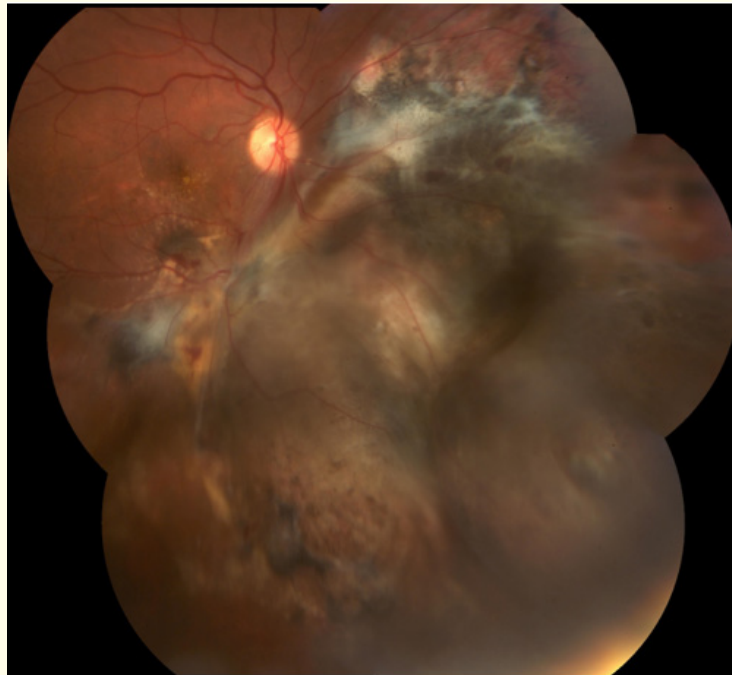


Figure 2F

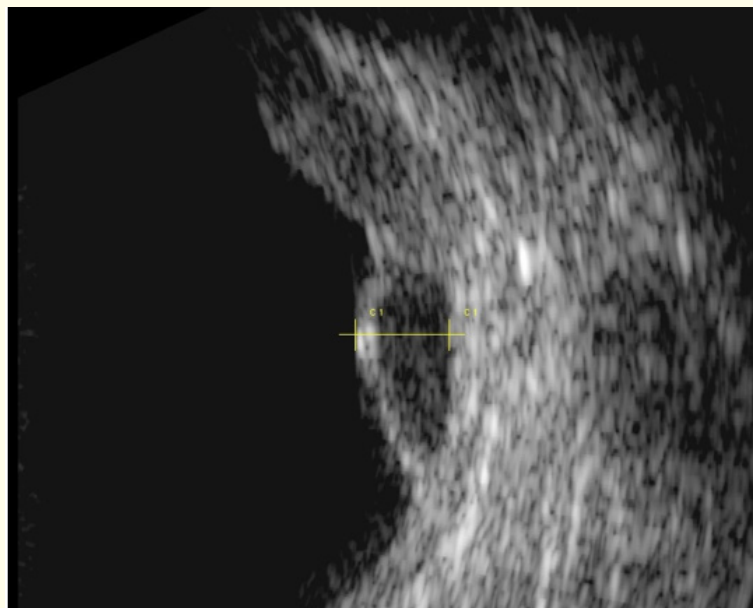


Figure 2G

Figure 2: Ultrasound with heterogeneous reflectivity, mostly areas with high reflectivity, no nodular mass or vascular movements (Figure 2A-2C). Vitrectomy, subretinal drainage and silicon oil tamponade (Figure 2D-2E). Apr 2018 Growth of brown lesion, peripheral to the hemorrhage (Figure 2F). USG without oil showed a low reflectivity peripheral mass, not visible previously (Figure 2G).

Discussion

Hemorrhagic retinal detachment is relatively frequent, especially in elder patients, secondary to peripheral exudative hemorrhagic chorioretinopathy (PEHCR), exudative maculopathy, macroaneurysm, trauma, and other conditions.

Peripheral exudative hemorrhagic chorioretinopathy is defined as a peripheral exudative-hemorrhagic retinal degenerative process of the eye [1]. These lesions can be a diagnostic challenges, as they can resemble melanomas [2]. In a large series of 1793 pseudomelanomas, PEHCR corresponded for 8% of all cases and 5% to hemorrhagic detachment of the retina or pigment epithelium [3]. Primary presentation of choroidal melanoma as intraocular hemorrhage is extremely infrequent, a review of 450 patients with choroidal melanoma found that only 2,9% presents with intraocular hemorrhage, either preretinal or subretinal, as initial sign [4,5]. To our knowledge only one case has been reported of choroidal melanoma presenting as a subretinal hemorrhage. The development of a dome shaped pigmented choroidal mass with subretinal fluid, orange pigment, and ultrasound hollowness should raise the suspicion of choroidal melanoma. In atypical cases a choroidal biopsy can be performed to confirm the diagnosis [6,7].

Conclusion

Even though it's very uncommon, every subretinal hemorrhage should have a thorough follow up thinking in the possibility of an underlying choroidal melanoma, and a diagnostic biopsy should be done if necessary.

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